

**Technical and Vocational Training  
Organization (TVTO)  
The Islamic Republic of Iran**

**Project for  
Strengthening the Technical and  
Vocational Training Management Skills  
in Technical and Vocational  
Training Organization  
in the Islamic Republic of Iran**

**Annual Final Report (3rd Year)/  
Project Completion Report**

**January 2011**

**JAPAN INTERNATIONAL COOPERATION AGENCY**

**PADECO Co., Ltd.**

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Location Map of the project sites





JPT Visited TVTC



First Pilot Training Course



First Pilot Training Course



Trainers' Training



Presentation of Certificate in First Course



Follow up survey for First Course



Second Pilot Training Course



IRG Meeting



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## Abbreviations

CBT	Competency Based Training
CDC	Curriculum Development Center
GOI	Government of Islamic Republic of Iran
IRG	Industry Reference Group
ITC	Instructor Training Center
JCC	Joint Coordinating Committee
JFY	Japanese Fiscal Year
JICA	Japan International Cooperation Agency
JPT	JICA Project Team
KOICA	Korean International Cooperation Agency
M&E	Monitoring and Evaluation
PDM	Project Design Matrix
TVT	Technical and Vocational Training
TVTC	Technical and Vocational Training Center
TVTO	Technical and Vocational Training Organization
UOC	Unit of Competence



## Executive Summary

The Islamic Republic of Iran faces the major challenge of unemployment especially among the younger generation. In the Law of the 4<sup>th</sup> Economic, Social and Cultural Development Plan for the period from 2005 to 2009, or the National Development Plan (2005 to 2009), the Government of Islamic Republic of Iran claimed to change its economic structure from resource dependent growth to knowledge-based growth by lifting up the technical levels of Iranian workers to the global standard as well as broadening employment opportunities through the reforms of the current mechanism of Technical and Vocational Training (TVT). The Technical and Vocational Training Organization (TVTO), as an affiliated organization of the Ministry of Labor and Social Affairs (MoLSA), handles planning and implementation of TVT as well as promotes the system of world-class skill certification. Reportedly, TVTO is a nationwide body that administrates 549 centers (Technical and Vocational Training Center: TVTC) and the number of the recipients (trainees) reaches more than 1.8 million in total. Considering the crucial role of TVTO, the Government of Islamic Republic of Iran requested the aid of Japan International Cooperation Agency (JICA) for organizational management improvements, especially with regard to the strengthening of the nation's labor market sensitivity. The sets of official agreements (the Record of Discussion(R/D) and Minutes of Meeting (M/M) for technical cooperation) were signed between TVTO and JICA in April 2007, which was followed by the dispatch of the JICA Project Team, or JPT, in November 2008.

This document reports the results of the concerned JICA Technical Cooperation Project in the Islamic Republic of Iran: "Project for strengthening the technical vocational management skills in Technical Vocational Training Organization (TVTO)". The report briefly summarizes the conditions and progress throughout the duration of the project, covering the period from November 2008 to December 2010. It comprises five parts: Outline of the Project (Chapter 1), Resources Required for the Project (Chapter 2), Project Activities (Chapter 3), Project Achievement (Chapter 4), Recommendations for the Way Forward (Chapter 5), and followed by Appendixes that contains the major related documents.

### Chapter 1 Outline of the Project

At the outset, the overall goal of the project was set as "Unemployment, especially of youth and women is improved" as shown in the original version of the Project Design Matrix (PDM ver.0); likewise, its project purpose was referred to as "TVTO's training management cycle is improved." In accordance with the aforementioned project goal, JPT proposed to introduce a CBT approach as the main means of achieving the project goal, which was officially accepted by TVTO in December 2008.

First and foremost, an effective TVT system needs to be demand-driven. Since the Iranian training system uses supply-driven models to develop training standards now, developed by TVT providers, this has caused a mismatch between training contents and industry need. In order to avoid a mismatch of training between industry and TVT providers, in the CBT system, Competency Standards are developed by committees consisting of representatives from the relevant industry and the TVT sector. The CBT approach enables trainees to acquire competencies (knowledge and skills) to enable them to effectively carry out their job functions and therefore, this approach can be considered as predominantly job-oriented training also. Assessment of the CBT approach is made in relation to whether a person has acquired the necessary knowledge and skills to accomplish their allocated jobs to the specified industry standards. The CBT approach has already been implemented in many countries including Australia and Canada.

In spite of the series of changes that the Project faced, such as the revision of PDM and the multiple transfers of responsible divisions of TVTO, the major approach of introducing CBT has been consistently supported by the Iranian counterparts. In the first year of the project, the Department of Training hosted the responsible division (official counterpart) and TVTC No.4 as the venue of the pilot training course. However, the Department of Research and Planning took over as the counterpart, while the Instructors' Training Center (ITC) in Karaj became the replacement for the location of implementation in the final year.

## **Chapter 2 Resources Required for the Project**

During the two-year project duration, the total man-month (assignments both in Iran and out-of Iran) amounted to 68.9 MM and consisted of seven (7) technical experts from two (2) countries, Japan and Australia. On the other hand, due to the repeated changes of implementation structure, the total number of counterparts assigned by TVTO reached 29: however only three (3) of them, as instructors in the auto-mechanics field had been involved consistently throughout the two years. The Joint Coordination Committee (JCC) was organized and a JCC meeting was held three times. The official records of meetings as well as those of the other major meetings can be found in the attachment (Appendix K). Also, other financial matters such as local expenses and required equipments are recorded in this chapter.

## **Chapter 3 Project Activities**

The two-year activities were implemented by taking into consideration the development of the Manual on CBT (see Appendix N) and the CBT expansion Plan (see Chapter 5) as technical outputs in the end.

The delivery of two pilot training courses in the field of auto mechanics by the CBT approach were the mission-critical tasks for the project. Aside from that, in order to develop the TVTO officials' understandings on the concepts, a series of workshops/seminars on CBT induction were carried out several times. In the original project design, such induction workshop was planned only once at the outset of the project. However, considering the drastic changes of counterpart members, these workshops were held more often. The three counterparts also attended the initial session (held in February 2009) and obtained a better understanding of the project.

Through the needs survey that defined the competency standards for the first and second pilot training courses, the Project established an Industry Reference Group (IRG) which consisted of representatives from various type of automotive service and repair industry and had meetings seven times in total and individual discussions with them at their place. In order to obtain appropriate advice from IRG members to ensure that designs of pilot training courses matched with industry needs, IRG members were selected in consideration of both company size and orientation. Conducting all the processes for determining competency standards takes a vast amount of time and budget and therefore the Project adopted a fast-track strategy involving the use of competency standards from other countries like Australia, and customizing them for Iran to decrease initial cost and time to implement a CBT system in Iran.

From preparation to delivery of the pilot training course by CBT approach, the experienced international (Australian) experts in auto-mechanics supervised the whole process of operation. Also, as for the side of monitoring and evaluation, the project's M&E expert consulted with the counterparts and encouraged them to produce a model of progressive monitoring. In the second pilot training course, the collaboration with the representatives from the industries were strengthened. As a result of encouragements through periodic meetings, visits, and interviews, the IRG members obtained a better understanding about CBT approaches and were able to contribute to the curriculum development effectively and appropriately. Moreover, the two



companies provided an opportunity of three-week industry attachment for the trainees of the second pilot training course, which was highly-evaluated by the trainees. Meanwhile, as the concerned second pilot training course merely covered 10 units out of the total 21 units of competency (which is the minimum requirement for Certificate II on auto-mechanics in terms of the Australian training standard). JPT recommended in Chapter 5 for TVTO to develop the remaining 11 units of competency to complete Certificate II.

This chapter also introduces lessons learnt through the project activities.

#### **Chapter 4 Project Achievement**

Chapter 4 describes the achievements that the counterparts obtained after the series of activities shown in Chapter 3. It was crucial to assess the levels of technology transfer with accuracy in terms of both efficient project operation as well as future sustainability. The final review mission dispatched by JICA in November 2010 concluded that the overall achievements of the Project can be summarized in a quite positive manner, with some issues to be considered for the future. The operation of the remaining 11 units of competency is a part of the future tasks up to TVTO as recommended in Chapter 5. However, right after the review program concluded, ITC had moved into actions for the series of training for the counterparts. The latest trends are summarized in the final section of Chapter 4.

#### **Chapter 5 Recommendations for the Way Forward**

In Chapter 5, the roadmap for TVT reforms through the CBT approach is illustrated by three stages: namely, development, pilot and full-implementation. Assuming each stage requires 2 years on average, it summarizes the 13 year plan (from 2011 to 2023) as a long-term picture simulated by JPT. Each step and implementation structure is shown in the following section. As a first step forward, it is suggested that the completion of the curriculum development and introduction of training based on CBT at the level of Certificate II is defined by the Australian training package, in the field of Auto-mechanics. Then the development and implementation for the higher Certificates, from 3 to 5, would become targeted. After these are accomplished, the reforms will be expanded to other training fields as prioritized. The latter sections refer to the required approaches and setting for successful TVT Reform in Iran, or in other words, the recommended plans: fast-track approach, progressive development and implementation, integration of CBT certificates into the current certification system, strengthening of instructors' industrial attachment, facilities and equipment of TVTC, curriculum and suitable training resources, quality assurance of delivering courses are argued here.

Aside from this document and technical outputs such as CBT Manual, the summary of the project process, its outcomes, lessons and recommendations were presented repeatedly taking the series of opportunities such as the introduction of the CBT manual, the third JCC, the other seminars/workshops, and the video programs. Such efforts contributed the accelerated understanding of the CBT approach as well as the results of the project along various levels of TVTO officials (managerial, experts, and instructors).



## Introduction

Demographically, the Islamic Republic of Iran is a young country with an average age of 24.7 years, and nearly two-fifths of its people are 15 years of age and younger. The country faces the major challenge of growing unemployment especially among its younger generations. The population trend indicates that there was a post revolution boom in births in the 1980s, which was then followed by a sharp birth rate decline commencing in the early 1990s. The population has trended down to the world average (3.1% in 1986 to 1.4% in 2005), due to the success of national policy. However, the issue of youth employment is still one of the major policy concerns. According to the Statistical Centre of Iran (2008), the net unemployment rate of Iran is 9.6% (12.9% in 2010), while the rate of the youth (age of 15 to 24 years) has risen to 20.3%.

In the first chapter of the Law of the 4th Economic, Social and Cultural Development Plan for the period 2005–2009, or the National Development Plan 2005–2009, the Government of Islamic Republic of Iran (GOI) emphasized the importance of knowledge-based industry growth in order to stabilize the use of foreign currency derived from the export of its abundant natural resources such as gas and oil. The Development Plan advocates an emphasis on the importance of human resource development by raising the technical levels of Iranian workers to the world's standard together with broadening employment opportunities through the reforming Technical and Vocational Training (TVT).

Responding to the above-mentioned national policy, the concerned ministry, the Ministry of Labor and Social Affairs (MOLSA), set several policy goals including: (1) creation of youth employment; (2) reduction in the unemployment rate to 8.4% by 2009; and (3) service of TVT programs especially for lower income groups.

The Technical and Vocational Training Organization (TVTO), as an affiliated organization of MOLSA, is responsible for the planning and implementation of TVT as well as the promotion of a system of world-class skill certification. Reportedly, TVTO is a nationwide body that administrates 588 centers (Technical and Vocational Training Center: TVTC) and the number of the recipients (trainees) reaches more than 1.8 million in total. Considering such crucial roles of TVTO, GOI requested JICA to assist with the improvement of its organizational management, especially in strengthening its labor market sensitivity.

JICA conducted preliminary studies and consulted with other stakeholders regarding the project scope and details in collaboration with TVTO. Based on the preliminary results, TVTO and JICA outlined a master plan, implementation structure, and division of responsibilities in the Record of Discussion and Minutes of Meeting which were signed in April 2007.

In accordance with the Record of Discussion and the Minutes of Meeting, JICA dispatched a JICA Project Team (Technical Cooperation Project Team) to support the project implementation in November 2008.

This report comprises a main report which presents the process and contents of the work accomplished during the project period between November 2008 and December 2010 and appendixes.





## 1. Outline of the Project

### 1.1 Introduction

This chapter provides a brief overview of the project, including the project outline as stated in the Project Design Matrix (PDM), project output, organizational structure and implementation approach. As the project revised the PDM twice under TVTO's initiatives in collaboration with the Japanese Review Team, this chapter presents details on the revision of PDM. It also includes the planned schedule and implementation of activities.

### 1.2 Outline of the Project in the Original PDM Version 0

The project was planned to be executed based on a mutual agreement between JICA and GOI in April 2007 and concluded as indicated in the Record of Discussion (Appendix A) and the Minutes of Meeting (Appendix B). According to the original version of the Project Design Matrix (PDM 0 of Appendix C), it can be outlined as follows:

#### Period and Areas of the Project

The project period was intended to last two years and one month, starting from November 2008 to December 2010. It was expected that the model developed in this project would be implemented by GOI nationwide, and hence the target area of the Project was the entire country of Iran with a primary focus on Tehran. It was believed that lessons learned in the activities based in Tehran would benefit all regions.

#### Objectives of the Project

(1) Overall Goal: Unemployment, especially of youth and women is improved.

The Overall PDM goal is that it will take between 3–5 years for project achievements to be fully realized. In this project, the goal was set as “Unemployment, especially of youth and women is improved” that would be verified with such indicators as the improvement in unemployment rates of youth and women.

(2) Project Purpose: TVTO's training management cycle is improved

#### Output of the Project

The expected outputs of the project consisted of 4 parts as follows:

Output 1: TVTO is able to assess the training needs in the labor market more efficiently;

Output 2: TVTO develops, reviews and updates the training course standard and curriculum based on the result of the labor market needs analysis;

Output 3: TVTO improves its monitoring and evaluation system; and

Output 4: TVTO develops a management improvement plan based on the review of the pilot training course(s).

The project period was 26 months from November 2008 to December 2010, which was divided into the following three period to match Japanese Fiscal Years (JFY).<sup>1</sup> The project completed on schedule as initially planned.

<sup>1</sup> The Japanese Fiscal Year (JFY) begins in April and ends in March.

- ✓ First Fiscal Year: November 2008 – March 2009
- ✓ Second Fiscal Year: May 2009 – March 2010
- ✓ Third Fiscal Year: May 2010 – December 2010

### **1.3 Implementation Approach (CBT Approach)**

The JICA Project Team (JPT) introduced a CBT approach as the main means of achieving the project goal stated in section 1.2 above.

A common challenge of TVT sectors in all countries is how to provide training that is relevant to job needs across all industry sectors.

In the face of rapidly changing technology, a TVT system should not only provide relevant training for entry-level trainees, but also should upgrade the skills of employees already in the workforce. Designing and delivering this kind of training is exceedingly difficult for a number of reasons. First and foremost, an effective TVT system needs to be demand-driven. That is, training standards need to be primarily defined by industry and not by TVT providers as is currently the case in Iran.

Rather than providers defining training standards with scant consultation with industry, appropriate industry personnel, working in collaboration with provider personnel, need to have substantial input into defining the training standard and appropriate levels of certification for jobs in their respective sectors. This means developing a framework through which industry maintains far greater cooperation with training providers in designing and delivering training.

Other reasons for why it is difficult to implement a demand-driven (or industry-driven) training system include the recruitment of suitable trainers with the required industry competencies to train people to the required industry standards and the provision of appropriate facilities, equipment and resources to meet these industry standards. Allocating a sufficient ongoing budget to meet these commitments is a further challenge.

Competency Based Training (CBT) is an approach that has been implemented in many countries including Australia, Canada, UK, Ireland, Singapore and New Zealand. The CBT approach is considered one of the most effective means of delivering training that is specifically relevant to occupational needs. It is used to provide training in most industry sectors.

A CBT approach enables trainees to acquire competencies (knowledge and skills) to enable them to effectively carry out job functions. In this sense it can be considered as predominantly job-oriented training. Assessment in the CBT approach is made in relation to whether a person has acquired the necessary knowledge and skills to accomplish their allocated jobs to specified industry standards.

In order to avoid a mismatch of training between industry and TVT providers, in the CBT system Competency Standards are usually developed by committees consisting of representatives from the relevant industry and the TVT sector. TVT providers, which can consist of publicly funded institutions, private organizations and industries themselves, are required to develop curriculum (training resources) and all other requirements that are necessary to deliver prescribed standards (also called Units of Competence) with the approval of a nationally constituted accreditation organization.

The CBT approach is flexible in terms of time management in that trainees can undertake specific units of competence (training modules) when it is mutually convenient. In the CBT system, therefore, current employees can participate in training courses to update their skills with less difficulty.

Units of competence vary from ones that are common to a number of industry sectors, to ones that are very specific. In Australia, for example, where a CBT approach has been applied over a substantial period of time and is generally considered to be a very successful model, a competency such as “Communication skills” is included in all training courses and the competency relating to “Drawing Basic” is included in all engineering training courses. These common courses can be delivered by the TVT provider. On the other hand, very specific competencies which require the use of advanced and expensive machines can be delivered by companies. Through public-private partnerships, the overall TVT cost can be reduced, and a flexible TVT delivery system can be achieved.

In summary, the benefits to TVT providers from establishing a CBT system, and thereby enabling cooperative partnerships between provider and industry are 1) the development of training standards that are specifically relevant to industry needs; 2) cost savings derived from not having to update training equipment on a continuous basis; 3) the delivery of specific training by using advanced equipment in cooperation with companies; and 4) the delivery of specific training regarding the latest skills and knowledge by using trainers from industry.

In addition, the benefits to companies from adopting a CBT system are 1) the identification of capable potential employees because of pre-existing knowledge of the trainees’ capability 2) a decreased investment in human resource development, and 3) improvements to the company image.

With a view to enabling the Iranian TVT system to acquire these benefits, JPT proposed to TVTO in their inception report to commence a program for adopting a CBT approach. TVTO approved this approach in December 2008.

#### **1.4 Revision of PDM**

PDM was revised twice at Mid-Term Review<sup>2</sup> and Terminal Evaluation<sup>3</sup> of the Project by mutual agreement between the Japanese side and the Iranian side. PDM ver. 0 (Appendix C) was revised to PDM ver.1 (Appendix D) at the Mid-Term Review to fit reality of the situation of the Project and to fill in some unfixed Objectively Verifiable Indicators on PDM 0. The PDM ver.1 was again revised to PDM ver.2 (Appendix E) at the Terminal Evaluation to fit the reality of the situation of the Project. The main points of these revisions are as follows and Minute of Meeting on these review can be found in Appendix F and G respectively.

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<sup>2</sup> The Japanese Mid-Term Review Team was dispatched from 6<sup>th</sup> December to 16<sup>th</sup> December 2009.

<sup>3</sup> The Japanese Terminal Evaluation Team was dispatched from 24<sup>th</sup> October to 2<sup>nd</sup> November 2010.

**Table 1.1 Revision of Overall Goal and Output on PDM**

<b>Item</b>	<b>Ver.0</b>	<b>Ver.1</b>	<b>Ver.2</b>
<b>Overall goal</b>			
Narrative Summary	Unemployment, especially of youth and women is improved	The National Vocational Qualification in labor force is improved	The CBT approach becomes a basis of the training structure of TVTO.
Objectively Verifiable Indicators (OVI)	Unemployment rate of youth and women is improved.	Participation rate in labor force is increased.	1. CBT manual (final version) in Persian is produced. 2. Representatives (core instructors) of each TVTC take CBT training courses conducted by TVTO.
<b>Project Purpose</b>			
OVI	1. XXX Pilot training course is planned and implemented until the end of the 1 phase.	1. Pilot training course is planned and implemented twice until the end of the project.	
<b>Output 1</b>			
OVI	1-2. Revision plan of training needs assessment method is developed.	1-2. Training needs assessment method is revised.	
Means of Verification	1-2. Revising plan	1-2. Manual of Training Needs Assessment	
<b>Output 2</b>			
Narrative Summary	TVTO develops, reviews and updates the training course standard and curriculum based on the result of the labor market needs analysis	TVTO develops, reviews and updates the training course standard and curriculum based on the industry training requirement	
OVI	2-1. XXX training course standard(s) and/or curriculum(s) are revised as a trial. 2-2. XXX pilot training course plans are developed.	2-1. Technical area for pilot training course is selected based on training needs analysis 2-2. Training course standard and/or curriculum are developed as a trial. 2-3. Pilot training course plans are developed.	
Means of Verification	2-1.Revised standard(s) and curriculum(s) 2-2.Pilot training course plan	2-1. Assessment reports 2-2.Revised standard and curriculum 2-3.Pilot training course plan	
<b>Output 3</b>			
OVI	3-1.Training monitoring and evaluation guideline is developed.	3-1.Training monitoring and evaluation manual is developed.	
Means of Verification	3-1.Monitoring and evaluation guideline	3-1.Manual of Monitoring and Evaluation	
<b>Output 4</b>			
Narrative Summary	TVTO develops a management improvement plan based on the review of the pilot training course(s)	TVTO develops, reviews and updates the training course standard and curriculum based on the industry training requirement	

Source: JICA Project Team developed based on information of PDMs

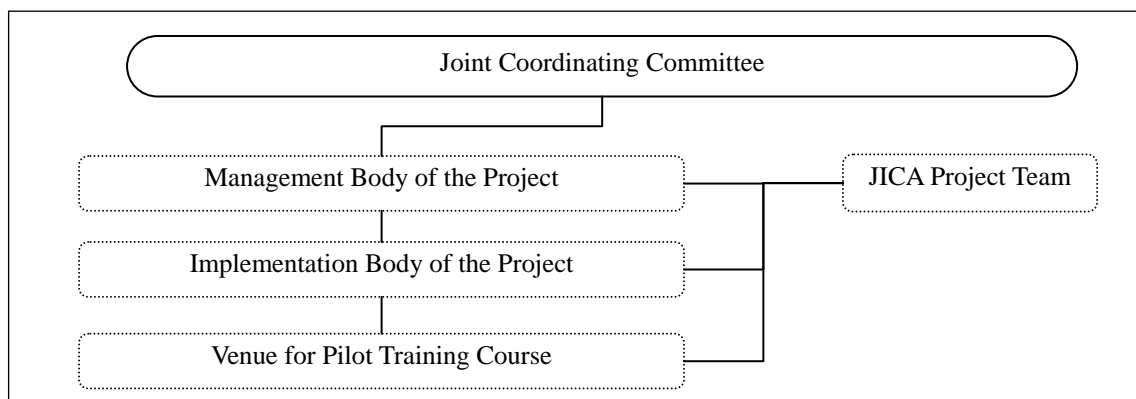


## 1.5 Project Implementation Structure

The implementation structure of the project was simple, as shown in Figure 1.1.

The Joint Coordinating Committee (JCC) was the highest decision-making body of the project. The chairperson of JCC was the Deputy of Management Body of the Project in TVTO. Members of JCC were deputy-level personnel from relevant divisions of TVTO.

The implementation structure of the project was changed several times due to the changes in TVTO's personnel and as a result of changes in the counterparts allocated to the JICA Project Team. Table 1.2 shows the history of changes of TVTO's administrative positions which were responsible for the changes in the Project.



Source: JICA Project Team

**Figure 1.1 Project Implementation Structure**

The changes in April 2009 and June 2010 were the two most significant during the project period. The first change, enacted by the president of TVTO, was the transfer of responsibility for hosting the Project in TVTO. Responsibility for the Project was transferred from the Deputy of Training to the Deputy of Research and Planning in April 2009. The second significant change was transferring the Project site from Tehran to the Instructor Training Center (ITC) in Karaj province. Since it was in the final project fiscal year, JPT explained the possible negative impacts of this transfer, but after a series of discussions, both parties agreed on the transfer with the conditions stated in the Memorandum of Understanding (MOU) as of 20 June (See Appendix H).

**Table 1.2 Summary of Transferring Responsibility of the Project**

Time	President	Management Body	Project Manager	Implementation body	Supervisor of Implementation	Venue for Pilot Course	Project Office		
Nov 2008	Mr. Sharif	Training Division	Mr. Chaharband, Deputy of Training	Training Division	Mr. Hatamzadeh, Training Division	TVTC No.4	Training Division, TVTO		
Apr 2009		Research and Planning Division		Mr. Saberi, Deputy of Research and Planning			Not decided	Not appointed	Research and Planning Division, TVTO
May 2009							CDC	Mr. Azad, Director of CDC	Research and Planning Division, TVTO + TVTC No.4
Dec 2009	Mr. Parviz	Dr. Ghofrani, Deputy of Research and Planning	Dr. Khanifar, Director of CDC	Mr. Farah Abadi, Acting Director of CDC	Research and Planning Division, TVTO + TVTC No.4 + CDC				
Apr 2010									
Jun 2010				ITC	Mr. Teimoori, Head of ITC	ITC	ITC		
Jul 2010	Mr. Pourabbas								

*CDC: Curriculum Development Center / ITC: Instructional Training Center, Karaj Province*

*Source: JICA Project Team*



## 2. Resources Required for the Project

### 2.1 Introduction

Various resources were required to implement the project. This chapter shows the input of human resources from both Japan International Cooperation Agency (JICA) and the Government of Iran (GOI), financial resources from JICA and GOI and equipment from JICA. Financial resources from GOI were utilized to implement the pilot training course.

### 2.2 Human Resources

#### Assignment of the JICA Project Team

The JICA Project Team (JPT) consisted of eight (8) selected experts, whose names and positions are listed below in Table 2.1. The table also shows the assignment period for each expert during the Japanese Fiscal Years (JFY)<sup>4</sup> 2008, 2009 and 2010 respectively. The numbers in the left cell indicate the duration of assignment days in Iran including traveling days. The numbers on the right (in parentheses) are the assignment days outside of Iran.

**Table 2.1 List of JICA Experts**

No	Position in the Project	Name	Assignment Days (JFY)		
			2008	2009	2010
1	Chief Advisor / Team Leader	Mr. Yuichiro MOTOMURA	36 (3)	38 (10)	29 (6)
2	Vocational Training Management 1 / Deputy Team Leader	Mr. Tatsuya NAGUMO	90 (3)	154	120 (1)
3	Vocational Training Management 2	Ms. Nakako ISHIMARU	65	100	117 (1)
4	Training Needs Assessment and Analysis	Mr. Toru ISHIBASHI	97 (5)	78 (3)	86 (4)
5	Training Monitoring and Evaluation	Mr. Kunitoshi SAITO	80 (5)	218 (3)	131 (4)
6	Training Standard and Curriculum / Automotive	Mr. Kevin JACKSON	0	140 (6)	
7	Training Standard and Curriculum / Automotive	Mr. Edward DE GABRIELE			135 (4)
8	Training Standard and Curriculum / CBT Advisor	Mr. Roger DEZILWA	80 (5)	100	110
Subtotal			448 (21)	828 (22)	728 (20)
Total			469	850	748

Source: JICA Project Team

#### Recruitment of National Staff

Table 2.2 shows the list of national staff working with JPT. The list only shows those national staff whose registered assignment period is more than one month.

<sup>4</sup> The Japanese Fiscal Year (JFY) begins in April and ends in March.

**Table 2.2 List of National Staff**

<b>Position in the Project</b>	<b>Name</b>	<b>Status</b>	<b>From</b>	<b>To</b>
Assistant Project Officer	Ms. Bahar HAMZEHPUR	Full Time	Dec 2008	Mar 2009
Project Support Advisor	Mr. Parviz IMANI	Full Time	Dec 2008	Dec 2010
Interpreter / Translator	Ms. Maryam AKBARI	Full Time	Jan 2009	Mar 2010
Interpreter / Translator	Mr. Mojtaba Ahmad KHAN HOUGH	Part Time	Jan 2009	Mar 2010
Project Support Advisor (IRG Coordinator) in JFY 2009; Translator	Mr. A. H. MAZDARANI	Part Time	Jul 2009	Mar 2010
Assistant Project Officer	Ms. Sara JAFARI	Full Time	Nov 2009	Dec 2010
Interpreter / Translator	Mr. Ramin Bagher	Full Time	Feb 2010	Nov 2010

Source: JICA Project Team

### Iranian Counterpart Personnel (TVTO)

The counterpart members assigned to the Project by TVTO were changed several times in accordance with the changes in policies of TVTO, as displayed in Table 1.2. Table 2.3 shows the list of the counterparts at the completion of the Project. Table 2.4 shows list of ex-counterparts.

**Table 2.3 List of the Counterparts (TVTO) at the Completion of the Project**

<b>Name</b>	<b>Organization</b>	<b>Status</b>	<b>From</b>	<b>Remark</b>
Dr. Ghofrani Mohammad	Deputy of Research and Planning	Part time	May 2010	Project Manager
Ms. Zahra ZAMANI Zenooz	Research and Planning Division	Full time	May 2010	Expert/Assistant for Dr.Ghofrani
Mr. Teymori	Head of ITC	Full time	Jun 2010	Expert
Mr. Bajolvand	Deputy of Training	Full time	Jun 2010	Project Coordinator
Mr. Karemi	Division of Training	Full time	Jun 2010	Section Chier
Ms. Bazpaas	Division of Training		Jun 2010	Assistant/Expert for Mr. Bajolvand
Mr. Moradi	Deputy of Logistics	Full time	Jun 2010	
Mr. Mokarami	Deputy of Research and Development	Full time	Jun 2010	
Mr. Varvmazyar	Head of Automotive Workshop	Full time	Jun 2010	
Mr. Seyed Mohsen SALIMIAN	CDC / TVTC No.7	Full time	Jan 2009	Automotive Expert
Mr. Javad RAFATI	CDC / TVTC No.7	Full time	Jan 2009	Ditto
Mr. Ebrahim KHALILZADEH	CDC	Full time	Jan 2009	Ditto

Source: JICA Project Team

**Table 2.4 List of Ex-Counterparts (TVTO)**

<b>Name</b>	<b>Organization</b>	<b>Status</b>	<b>From</b>	<b>To</b>	<b>Remark</b>
Mr. Esfandiyar CHAHARBAND	Deputy of Training	Part time	Dec 2008	Apr 2009	Project Manager
Mr. Alireza HATAMZADEH	Training Division	Part time	Dec 2008	Apr 2009	
Ms. Zahra ZAMANI Zenooz	Training Division	Full time	Dec 2008	Apr 2009	Project Coordinator
Mr. Davood FARROKHI	Training Division	Part time	Dec 2008	Apr 2009	
Mr. Alireza TAHERPOUR	Training Division	Part time	Dec 2008	Apr 2009	
Mr. Rezaali TARKHAN	Training Division	Part time	Dec 2008	Apr 2009	
Mr. Soheil SHAHRAKI EBRAHIMI	Head, TVTC No18	Part time	Dec 2008	Apr 2009	Automotive Expert
Mr. Mohammad Ali HAMIDI KIA	TVTC No. 18	Part time	Dec 2008	Apr 2009	Automotive Expert
Mr. Roohollah GHASEMI	TVTC No. 18	Part time	Dec 2008	Apr 2009	Automotive Expert
Mr. Seyed Bagher AZIMI DOKHT	TVTC No. 18	Part time	Dec 2008	Apr 2009	Automotive Expert
Mr. Mohammad Taghi SABERI	Deputy of Research and Planning	Part time	Apr 2009	Mar 2010	Project Manager
Mr. Ebrahim AZAD	Director General, CDC Consultant	Part time	Apr 2009 Dec 2009	Nov 2009 Mar 2010	Technical Supervisor
Mr. Hassan GHOFAN	CDC	Part time	Jun 2009	Dec 2009	Assistant of Technical Supervisor
Ms. Parisa JAYMAND	Office of Research and Planning	Part time	Jun 2009	Mar 2010	Project Coordinator
Mr. Ramak FARAH ABADI	Acting Director General, CDC	Part time	Dec 2009	Mar 2010	Technical Supervisor
Mr. Hemmat Ali NAJIB ZADEH	Principal of TVTC No.4	Part time	Jan 2009	May 2010	
Mr. Nader NIKORAVAN	CDC / TVTC No.7	Full time	Jun 2009	Aug 2010	Automotive Expert

Source: JICA Project Team

### Iranian Counterpart Personnel (Private Sector)

As participation of the private sector was considered a key factor in the successful implementation of a CBT system, the project has encouraged and promoted the participation of personnel from the private sector since January 2009. A list of personnel who participated from the private sector, as members of Industry Reference Group (IRG), is shown in Table 3.2 of Section 3.3. These members were regularly screened to make IRG functions more effective and relevant.

## 2.3 Project Office and Venue for the Pilot Training Courses

Project offices were relocated frequently due to the change of counterpart organization described in Table 1.2 in section 1.5. The history of relocation is shown in Table 2.5.

**Table 2.5 History of Project Office Relocation**

Timing	Main office	Second room	Workshop room
Nov 2008	A room in Training	A room in 2 <sup>nd</sup> floor of TVTO	--
Dec 2008	Division	--	--
June 2009		--	TVTC No.4
Aug 2009	A room in TVTO	--	
Oct 2009	Consultant Room	A room in Research and Planning Division	
Jan 2010		A room in CDC building	
Jul 2010	ITC	--	ITC

Source: JICA Project Team

## 2.4 Local Expenses

Both JICA and GOI provided funds for the implementation of the project. The summary of the amount provided from JICA is shown in Table 2.6. Note that the costs shown in the table do not include the personnel costs of international experts.

**Table 2.6 Breakdown of Local Expenses, Funded by JICA (in JPY)**

Items	JFY2008	JFY2009	JFY2010
Labor (Secretary, Interpreter, Consultant, etc.)	1,793,000-	11,050,000-	
Maintenance of office equipment	0-	0-	
Consumables (paper, toner, etc.)	24,000-	2,000-	
Communication (Telephone)	38,000-	55,000-	
Photocopy, translation and books	57,000-	270,000-	
Rental car	665,000-	1,706,000-	
Cost for training, meetings and workshops)	133,000-	18,000-	
Equipment (Computer, etc.)	1,280,000-	0-	
Total	3,989,000-	13,101,000-	

NB: The figures are rounded to the nearest 1,000.

Source: JICA Project Team

## 2.5 Equipment, Books and Documents Collected

JPT provided a number of pieces of equipment to the project office to facilitate the implementation of the Project in JFY 2008 and JFY 2010 (see Appendix I).

TVTO purchased some equipment and consumables for TVTC No. 4 to implement the first pilot training course. The details of this procurement are described in Chapter 3.

The list of books purchased or collected by the Project is shown in Appendix J.

## 2.6 Record of Meetings, Conferences and Workshops

Table 2.7 shows a list of major meetings that were held between JPT and TVTO personnel during the project period. The minutes of meetings indicated in Table 2.7 can be found in Appendix K.

**Table 2.7 List of Meetings and Conferences with TVTO**

<b>No</b>	<b>Date</b>	<b>Main Agenda</b>	<b>Style</b>	<b>No. of Participants</b>
1	29 Nov 2008	Commencement of the Project	CP Meetings	Total: 17 (TVTO: 7, JICA: 5, JPT: 5)
2	8 Dec 2008	Project Framework	CP Meetings	Total: 12 (TVTO: 4, JPT: 8)
3	20 Dec 2008	Project Direction	CP Meetings	Total: 19 (TVTO: 8, JICA: 9, JPT: 2)
4	20 Jan 2009	Selection of Counterpart	CP Meetings	Total: 6 (TVTO: 2, JPT: 4)
5	3 Feb 2009	Training Need Analysis	CP Meetings	Total: 8 (TVTO: 2, JPT: 6)
6	9 Feb 2009	Training Need Analysis and CBT Induction	CP Meetings	Total: 8 (TVTO: 2, JPT: 6)
7	16 Mar 09	Progress of the Project	JCC Meeting	Total: 20 (TVTO: 9, JICA: 2, JPT: 9)
8	25 Jun 2009	Progress of the Project	Weekly Meeting	Total: 9 (TVTO: 3, JPT: 6)
9	29 Jun 2009	Progress of the Project	Weekly Meeting	Total: 8 (TVTO: 2, JPT: 6)
10	13 Jul 2009	Progress of the Project	Weekly Meeting	Total: 6 (TVTO: 2, JPT: 4)
11	27 Jul 2009	Progress of the Project	Weekly Meeting	Total: 4 (TVTO: 2, JPT: 2)
12	3 Aug 2009	Progress of the Project	Weekly Meeting	Total: 8 (TVTO: 4, JPT: 4)
13	14 Sep 2009	Progress of the Project	Weekly Meeting	Total: 7 (TVTO: 4, JPT: 3)
14	28 Sep 2009	Progress of the Project	Weekly Meeting	Total: 4 (TVTO: 1, JPT: 3)
15	5 Oct 2009	Progress of the Project	Weekly Meeting	Total: 4 (TVTO: 1, JPT: 3)
16	19 Oct 2009	Progress of the Project	Weekly Meeting	Total: 5 (TVTO: 1, JPT: 4)
17	27 Oct 2009	Progress of the Project	Weekly Meeting	Total: 7 (TVTO: 3, JPT: 4)
18	2 Nov 2009	Progress of the Project	Weekly Meeting	Total: 7 (TVTO: 2, JPT: 5)
19	17 Nov 2009	Progress of the Project	Weekly Meeting	Total: 7 (TVTO: 2, JPT: 5)
20	30 Nov 2009	Progress of the Project	Weekly Meeting	Total: 9 (TVTO: 3, JPT: 6)
21	18 Jan 2010	Progress of the Project	Weekly Meeting	Total: 7 (TVTO: 3, JPT: 4)
22	1 Feb 2010	Progress of the Project	Weekly Meeting	Total: 11 (TVTO: 5, JPT: 6)
23	3 Feb 2010	Progress of the Project / Framework of the second pilot training course / Issues to be addressed by TVTO in the future	JCC Meeting	Total: 27 (TVTO: 17, JICA: 2, JPT: 7, Observer: 1)
24	17 Feb 2010	Progress of the Project/Work plans for the trainers for second pilot training course	Weekly Meeting	Total: 8 (TVTO: 3, JPT: 5)
25	22 May 2010	Inception of the 3rd fiscal year	CP Meetings	Total: 8 (TVTO: 2, JPT: 6)
26	24 May 2010	Inception of the 3rd fiscal year	CP Meetings	Total: 5 (TVTO: 1, JPT: 4)
27	22 Jun 2010	Progress of the Project/Work plans for the trainers for second pilot training course	CP Meetings	Total: 3 (TVTO: 1, JPT: 2)
28	25 Aug 2010	Establishment of CBT Working Committee	CBT Working Committee	Total: 6 (ITC: 1, JPT: 5)
29	4 Sep 2010	role of committee	CBT Working Committee	Total: 12 (TVTO: 2, ITC: 3, JPT: 7)
30	6 Sep 2010	Progress and schedule of the Project	CP Meetings	Total: 4 (TVTO: 1, JPT: 3)
31	18 Sep 2010	Role of committee	CBT Working Committee	Total: 4 (TVTO: 1, JPT: 3)



No	Date	Main Agenda	Style	No. of Participants
32	26 Sep 2010	Final Evaluation	CP Meetings	Total: 3 (ITC: 1, JPT: 2)
33	17 Oct 2010	Final Review, Video Making	CBT Working Committee	Total: 7 (ITC: 3, JPT: 4)
34	6 Nov 2010	Final Review, Video Making	CBT Working Committee	Total: 9 (ITC: 3, JPT: 6)
35	7 Nov 2010	Progress	CP Meetings	Total: 7 (ITC: 1, JP: 6)
36	10 Nov 2010	Final Report / Presentation of the way forward	JCC Meeting	Total: 22 (TVTO: 11, JICA: 2, JPT: 9, Observer:1)
37	13 Nov 2010	Training of Trainers	CBT Working Committee	Total: 9 (ITC: 1, JPT: 6)

Source: JICA Project Team

Table 2.9 shows the record of workshops organized by JPT during the project period.

**Table 2.8 List of Seminar/Workshops**

No	Period	Name of Workshop	Venue	No. of Participants
1	19 Jan 2009	Inception Workshop	TVTO	
2	28 Jan 2009	Workshop on Training Needs Analysis	TVTO	
3	23 Feb – 9 Mar 2009	Induction Program for Developing and Delivering a Competency Based Curriculum	TVTC No.4 & TVTO	TVTO: 7
4	28 Jun – 5 Aug 2009	Training of Trainers	TVTC No. 4	TVTO: 4
5	26 Sep 2009	The workshop on monitoring and evaluation of the first pilot training course	TVTO	CDC: 1 Trainers:4 JPT: 4
6	22 June 2010	Workshop “Introduction of a model of competency based training (CBT) and JICA Project”	ITC	TVTO/ITC: 50 JPT: 7
7	5–7 Sep 2010	Workshop “Introduction of a model of competency based training (CBT)”	ITC	ITC: 27, JPT: 3
8	10 Oct 2010	Introduction of CBT Manual and the JICA Project	ITC	ITC: 20, JPT: 6
9	7 Nov 2010	Seminar on Introduction of CBT model for manager of industry department of each Provincial office of TVTO	ITC	ITC: 30, JPT: 6
10	8 Nov 2010	Seminar on Introduction of a model of competency based training (CBT)	Rajahi University	University 15, JPT: 2
11	8–9 Nov 2010	Training of Trainers	ITC	ITC: 13, JPT: 3

Source: JICA Project Team

### **3. Project Activities**

#### **3.1 Introduction**

This chapter provides details on the proceedings and implementation results of the various activities during the project period.

#### **3.2 Introduction of a Model of Competency Based Training (CBT)**

CBT induction participatory workshops for the counterpart's staff were conducted several times whenever the transferring of counterpart division happened, as this participatory workshop was the best means for the beginner to grasp the concept of CBT effectively. (Details of the workshop objectives, schedule, supplementary documentation and participant handbook can be found in Appendix L).

The primary assumption behind the conduct of the workshops was to enable the counterparts to conduct CBT pilot training courses in the Automotive Service & Repair sector. It was intended that the counterparts would gain an effective understanding of the Australian CBT approach to technical and vocational training and be able to apply this approach to the Iranian TVT context.

In the first workshops held in Feb.–Mar. 2009, participants were introduced to the CBT model of industry competency standards and course development and delivery. Since the primary objective of the pilot training courses was to pilot the delivery of the Australian Competency Standards' intended courses, participants were first provided with a brief background of the history of Australian TVT reform, together with the Australian National Qualifications Framework, the national TVT operational structure and associated policy directions.

In the workshop sessions, the participants were also given an explanation of the structure of the Australian Training Packages (the collection of national competency standards across all industry sectors) with a particular focus on competency standards in the Automotive Service and Repair sector.

The participants were required to examine Australian Units of Competence (Industry competency standards) in detail and explain all key components. The participants were also required to study curriculum that had been developed to support delivery of these competency units and consider how this curriculum can be adapted to delivering training to Iranian trainees.

Because the workshops were participatory, each participant was required to translate an Australian unit of competence into Farsi, analyze the contents and confirm all key job tasks in consultation with personnel from an appropriate workplace. They were then required to develop a small piece of curriculum and to support the delivery of the selected units and describe appropriate training approaches and methods.

Different from the first workshop above, there were needs from TVTO to implement seminars for various TVTO staff. The main objective of the workshops was to enable as many TVTO staff members as possible to be inducted into the CBT approach, to be able to describe an acceptable framework for writing industry competencies, to undertake a process of developing curriculum appropriate to prescribed competency standards and to select suitable methods to deliver the required training. Through the workshops, approximately 170 personnel from TVTO and ITC have been inducted into the CBT approach and methodology. (See Table 2.8 for more detail)

### 3.3 Needs Survey to Define Units of Competence

#### 3.3.1 Industry Reference Group (IRG)

Industry Reference Group (IRG) is the most significant mechanism for TVTO to introduce and expand the CBT system. Through a survey to define competency standards for the first and second pilot training courses, the Project successfully established an IRG and has maintained good relations with IRG members and the companies they represent. These companies agreed to provide cooperation in implementing the pilot training courses. The IRG meetings were held 7 times during the Project.

In order to make the process for defining competency standards for the pilot training courses intensive and systematic, IRG was first formed in June 2009 with the primary role of prioritizing units of competency chosen from an Australian Training Package.

The JICA Project Team (JPT) and TVTO counterparts had individual discussions with IRG members, conducted group meetings and also followed up by conducting individual interviews. The individual and group meetings focused on 1) understanding the CBT concept and the Australian CBT structure; 2) establishing appropriate target levels for the pilot training courses; and 3) selecting appropriate competency units from Australian Training Package for the automotive service & repair sector.

Since this was the first experience of this kind of engagement for the industry representatives, the IRG meetings were held several times. In these meetings, IRG members were acquainted with the Australian CBT system. In the process, the IRG had good representation in terms of both the size of the companies and their orientation. All representatives have a technical background and a sufficient level of work experiences in the automotive service & repair sector. The IRG members are listed below:

**Table 3.1 List of IRG Members**

No	Position	Company	Group	Size
1	Principle of Training Curriculum Office	Saipa Yadak HQ	Saipa	Large
2	Technical Expert	Saipa Yadak HQ	Saipa	Large
3	Technical Expert	Saipa Yadak HQ	Saipa	Large
4	Head	Saipa Yadak Central Workshop No 8	Saipa	Large
5	Technical Expert	Saipa Yadak Central Workshop No 8	Saipa	Large
6	Manager	Saipa Yadak Workshop and Dealership	Saipa	S-M
7	Technical Expert	Saipa Yadak Workshop and Dealership	Saipa	S-M
8	Manager	Iran Khodro Central Workshop	Iran Khodro	Large
9	Head	Iran Khodro Workshop No 1	Iran Khodro	Large
10	Head	Iran Khodro Workshop No 5	Iran Khodro	Large
11	Technical Expert	Mega Motors	Mega	Large
12	Executive Board Member	Trade Union	Others	S-M
13	Technical Expert	Independent Consultant	Others	S-M
14	Technical Expert	Saipa Yadak-Pars	Saipa/Pars	Large
15	IRG Coordinator	JICA Project Team	----	----

Source: JICA Project Team

#### 3.3.1 Training Needs Assessment and Analysis

Training needs assessment and analysis was held twice to define and customize the units of competence for the first and second pilot training courses, using the Australian Training Package for the Automotive Retail, Service and Repair sector.

The approach for conducting the survey involved:

- ✓ The selection of the most appropriate units of competence in the Australian Training Package;
- ✓ The prioritization of selected units of competence through meetings and questionnaire in order to reflect training needs of Iranian industry; and
- ✓ The customization of prioritized units of competence through interviews with experienced technical experts working in the auto-mechanic sector of the industry.

The process to define competency standard for the pilot training courses included:

- ✓ Forming an Industrial Reference Group (IRG) with experienced technical experts from a variety of companies and sizes;
- ✓ Enabling IRG members to understand the CBT concept and approach through the meetings and seminars;
- ✓ Enabling IRG members to decide on an appropriate training area for the implementation of pilot training courses;
- ✓ Selecting appropriate units of competence (UOCs) from the Australian Training Package to suit the targeted training areas;
- ✓ Prioritizing the selected units of competence (UOCs) through meetings and the distribution of questionnaires to IRG members;
- ✓ Analyzing the results of questionnaires to decide on a final list of UOCs for the pilot training course; and
- ✓ Customizing the training contents of each UOC through interviews with IRG members.

### First Pilot Training Course

The Automotive Service & Repair sector was chosen as the training area for the first pilot training course through a series of discussions with TVTO in the beginning of 2009.

JPT and the counterpart staff made visits to various companies in the auto mechanic industry. These included Saipa Yadak and Iran Khodro Training Center as representatives of large scale companies, medium scale dealerships and small scale workshops.

Through interviews with managers, technical experts and auto mechanics, the Project obtained an overall impression of the auto mechanic industry in Iran. Based on this, questionnaires were developed in English and translated into Farsi. Companies to be interviewed were selected in consultation with representatives from the major companies. The implementation plan was discussed and prepared in an Inception Workshop held on 19th January 2009 and in a workshop on Training Needs Analysis on 28th January 2009.

Through the discussions with TVTO during these workshops, the following final decisions were made:

- ✓ The electrical area of the auto mechanics is the target training area for the first pilot training course;
- ✓ All relevant competencies in the electrical areas related to the light vehicle of auto mechanics covering Certificate 2, 3 and 4 from the Australian training package were listed and confirmed through interviews conducted with IRG representatives. There are 19 units in this category;
- ✓ In addition, three employability related units were selected and confirmed;
- ✓ The total number of units selected was 22. The questionnaire was prepared and included a Unit Descriptor, a Unit Scope and an Element in each unit;

- ✓ Around 10 technical experts working for Saipa Yadak, Iran Khodro and their dealerships were interviewed by TVTO instructors with auto mechanic backgrounds; and
- ✓ 5 units were prioritized and selected for the first pilot training course.

Based on this final agreement, a detailed questionnaire was developed and finalized to customize the UOCs by prioritizing and adding components. The interview commenced on 15th February 2009 and was completed on 22th February 2009. 17 technical experts in Saipa Yadak, Iran Khodro Training Center and their dealerships were interviewed.

### Second Pilot Training Course

The entry level in the auto mechanic sector was chosen for the second pilot training course. Before implementing the pilot training course, JPT conducted a survey to confirm and customize competencies through consultations with industry representatives. The final selection included the most appropriate competency units for entry level training. 21 competency units were selected from the basic competency units in the Automotive Retail, Service and Repair Training Package.

Questionnaire sheets to confirm these 21 units of competence were prepared. 13 IRG members rated the 21 units of competence high in relation to their relevance for an entry level into the workforce. All units of competence were highly recommended because it was perceived that they were needed to perform the role as Maintenance/Service Mechanic in most workshops.

After analyzing the results of the questionnaires, JPT and its counterparts visited IRG members individually for further discussions to customize each unit of competence by asking specific comments for training content. After summarizing their comments, all units of competence were customized reflecting specific training needs of the industry. Table 3.2 shows some important comments given by IRG members.

**Table 3.2 Selected Comment by IRG Members on Units of Competence**

<b>Unit Title</b>	<b>Comment Summary</b>
Read in the workplace	<ul style="list-style-type: none"> <li>• Add ability to make technical reports by using timetable, flowchart, charts and graphs</li> </ul>
Apply safe working practices	<ul style="list-style-type: none"> <li>• Prepare some material safety sheets, which mentions how to handle the material regarding its chemical reaction and teach these techniques in the classroom</li> </ul>
Use and maintain basic measuring equipment	<ul style="list-style-type: none"> <li>• Add the measurement of run-out and free-play</li> <li>• Add micrometers, specialized measurement devices, identification of bolts</li> </ul>
Remove, fit and inspect wheel assemblies	<ul style="list-style-type: none"> <li>• Add time table of changing tires , balance of tires (static, dynamic) special tools, steel and aluminum rings and tire specification</li> </ul>
Test, service and charge batteries	<ul style="list-style-type: none"> <li>• Add electricity basics and principles</li> <li>• Add identification of charging system components and vehicle starter</li> <li>• Add identification of hydro meter, battery charger and jump start</li> </ul>
Inspect and service cooling systems	<ul style="list-style-type: none"> <li>• Add pressure test and coolant test for quality and quantity</li> <li>• Omit filters, multiply systems and materials of components</li> </ul>
Inspect and service braking systems	<ul style="list-style-type: none"> <li>• Add brake adjustment, air bleeding and repairs of drum</li> <li>• Add identification of brake fluid, changing of brake fluid and air bleeding, testing of brake booster, adjustment of manual brake</li> </ul>

Unit Title	Comment Summary
Inspect and service transmissions (manual)	<ul style="list-style-type: none"> <li>• Add function of manual transmission, identification of transmission fluid, method of changing transmission fluid, identification of fluid leakage and final drive assemblies</li> <li>• Add ability to change the transmission fluid</li> </ul>
Inspect and service engines	<ul style="list-style-type: none"> <li>• Add checking of three major functions, spark (timing and ignition quality), air fuel mixture (amount and quality) and compression</li> <li>• Add measuring of valve clearance, adjustment of valves, changing of belts , replacement and adjusting of spark plugs, changing of filters</li> </ul>
Service petrol fuel systems	<ul style="list-style-type: none"> <li>• Add changing of fuel filter, air filter, identification of fuel leakage and carbon canister</li> <li>• Add identification of injection and ignition system</li> </ul>

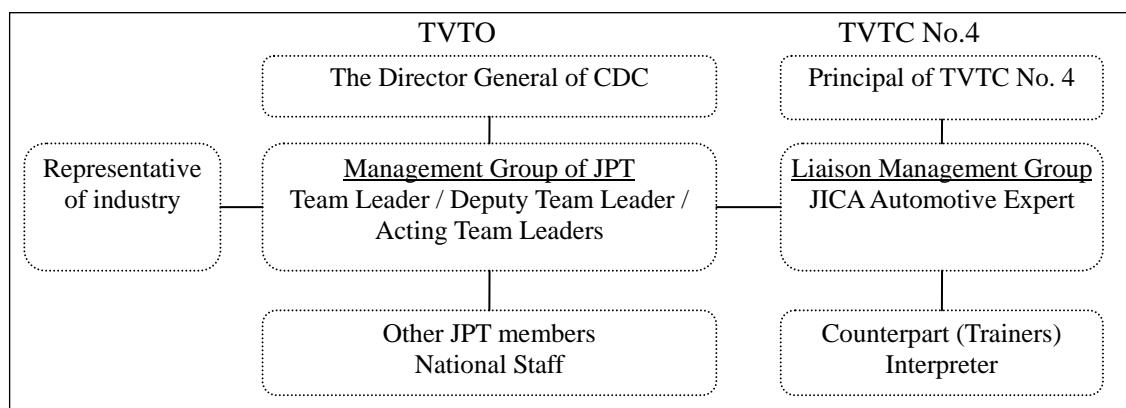
Source: JICA Project Team

### 3.4 The First Pilot Training Course

The first pilot training course was conducted between 3 October and 25 November 2009 after a successful 4-week Train the Trainer course for the 4 CPs. Eleven out of twelve trainees completed all the training programs, although one of the trainees completed only three units of competence out of six. This section describes how the course was implemented.

#### 3.4.1 Implementation Structure of the First Pilot Training Course

The Project established structured communication channels between the Curriculum Development Center (CDC) which was an implementing body of the Project in 2009, TVTC No. 4 which provided a training venue, the four counterpart trainers, and the JICA Project Team (JPT) as shown in Figure 3.1, as their locations were separated.



Source: JICA Project Team

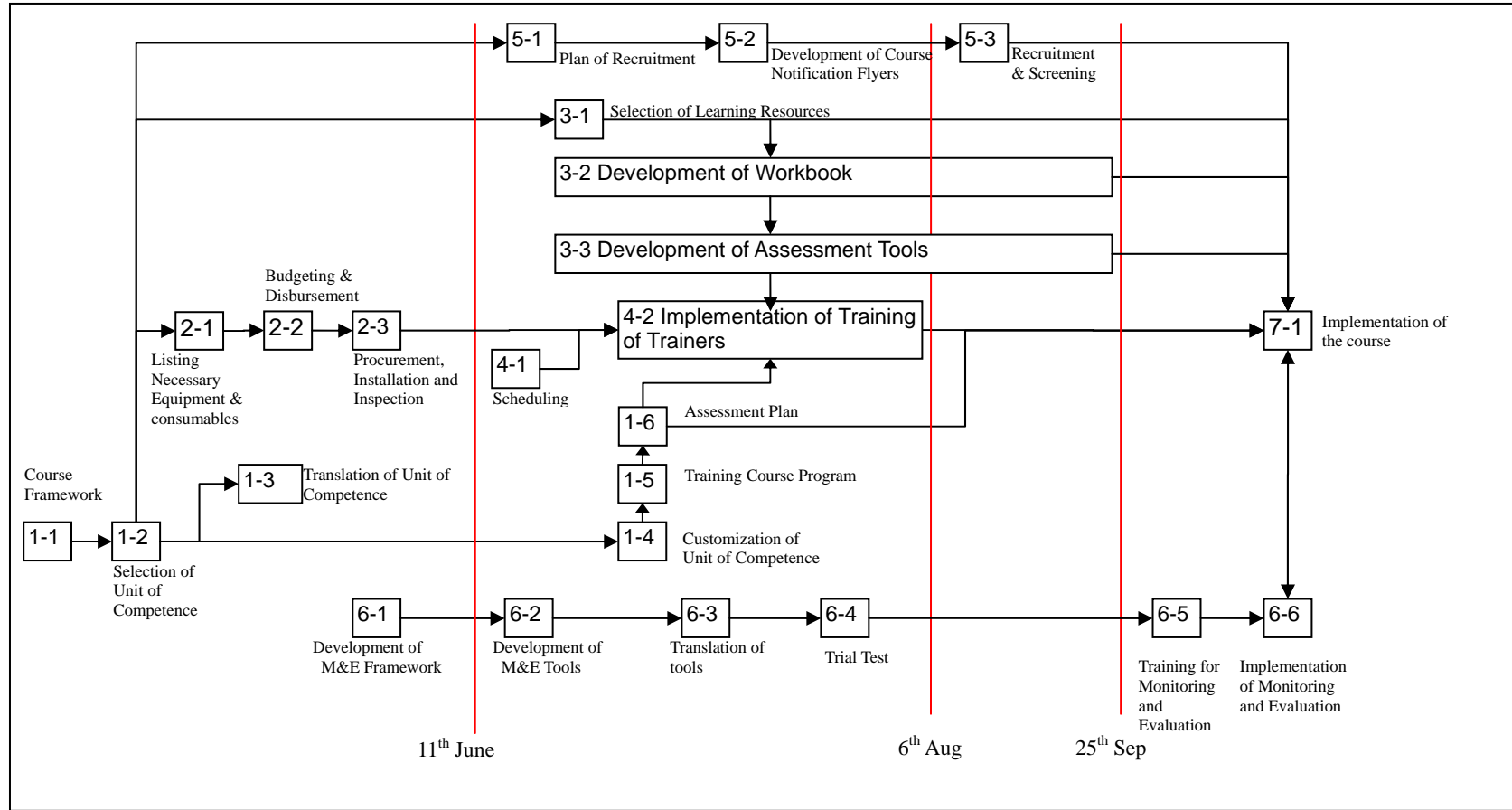
**Figure 3.1 Implementation Structure of the First Pilot Training Course**

### 3.4.2 Process of Implementation of the First Pilot Training Course

Tasks to implement the first pilot training course were broken down into 7 components and each component was broken down into several tasks as shown below.

Component 1:	Preparation of Training Course
Task 1-1	Course Framework
Task 1-2	Selection of Unit of Competence
Task 1-3	Translation of Unit of Competence
Task 1-4	Customization of Unit of Competence
Task 1-5	Training Course Program (Curriculum)
Task 1-6	Assessment Plan
Component 2	Equipment and Consumables
Task 2-1	Listing Necessary Equipment & consumables
Task 2-2	Budgeting & Disbursement
Task 2-3	Procurement, Installation and Inspection
Component 3	Course Materials
Task 3-1	Selection of Learning Resources
Task 3-2	Development of Workbook
Task 3-3	Development of Assessment Tools
Task 3-4	A Guide for Learning Resources
Component 4	Training of Trainers
Task 4-1	Scheduling
Task 4-2	Implementation of Training of Trainers
Component 5	Recruitment of Trainees
Task 5-1	Plan of Recruitment
Task 5-2	Development of Course Notification Flyer
Task 5-3	Recruitment & Screening
Component 6	Monitoring and Evaluation (M&E)
Task 6-1	Development of M&E Framework
Task 6-2	Development of Monitoring and Evaluation Tools
Task 6-3	Translation of Tools
Task 6-4	Trial Test
Task 6-5	Training for Monitoring and Evaluation
Task 6-6	Implementation of Monitoring and Evaluation
Component 7	Implementation of the Course

The following diagram in Figure 3.2 illustrates a schedule network by Precedence Diagramming Method used to manage the first pilot training course.



Source: JICA Project Team

Figure 3.2 Schedule Network Diagram for the First Pilot Training Course



The following explains the detailed process of each component for the first pilot training course.

### Component 1: Preparation of Training Course

The contents and conditions of the first pilot training course were determined as follows:

#### C1-1 Course Framework

The pilot training course framework was drafted by JPT and presented to TVTO in December 2008. The Automotive sector was recommended as it was a typical industrial sector in Iran, and the skills required to perform most jobs within this sector are, in a general sense, universally applied across all countries. The choice of the Automotive repair and service sector for conducting the pilot training course was agreed to by TVTO.

**Table 3.3 Framework of the First Pilot Training Course**

<b>Venue:</b>	TVTC No. 4
<b>Course Selection:</b>	Automotive: Retail, Service and Repair Automotive Mechanical Technology Certificate III in Automotive Mechanical Technology Electrical Part (4 units) + Employability (1 unit) as a sample
<b>Course Duration:</b>	2 months (October 3–November 25, 2009)
<b>Expected Trainers:</b>	Trainers Counterparts
<b>Expected Trainees:</b>	Graduates of High School or Technical School/Beginner in Industry (Number of trainees 10–14)
<b>Training of Trainers:</b>	End of June 2009– Beginning of August 2009

*Source: JICA Project Team*

#### C1-2 Selection of Unit of Competence

Based on the framework in Table 3.3 and the results of a needs survey implemented in February and March 2009, a set of units of competence were selected for the first pilot training course. The list of units selected is shown in Table 3.4 below.

**Table 3.4 Selected Unit of Competence for the First Pilot Training Course**

Unit Code	Unit Title
AURE218708A	Carry out repairs to single electrical circuits
AURE321171A	Service and repair electronic spark ignition engine management systems
AURE320666A	Repair ignition systems
AURE218676A	Test, service and charge batteries
AURC270103A	Apply safe working practices
AURT270278A	Use and maintain workplace tooling and equipment

*Source: JICA Project Team*

#### C1-3 Translation of Units of Competence

The translation of the units of competence for the first pilot training course was undertaken by the trainers during the absence of JPT from March to May in 2009.

#### C1-4 Customization of Units of Competence

During the “Training of the Trainers” sessions, all six units of competence (UOCs) were customized to be specifically relevant to training standards in the Iranian automotive service-repair sector. This process required adaptation of some of the Australian standards and the incorporation of relevant material that was deemed to be specifically appropriate for training

in Iran. In some instances the adaptation process required researching local web sites to find current information that applied specifically to locally produced vehicles.

### C1-5 Training Course Program (Curriculum)

The sequence of delivery of the units was determined according to the complexity of each one as follows:

1. Apply safe working practices
2. Use and maintain workplace tooling and equipment
3. Carry out repairs to single electrical circuits
4. Test service and charge batteries
5. Service and repair ignition systems
6. Service and repair electronic spark ignition engine management systems

The title of the course was determined as “Electrical Systems in Automotive Technology Course”.

The Session Plan and Schedule of the first pilot training course were also determined as shown in Tables 3.5 and 3.6 respectively.

**Table 3.5 Session Plan of the First Pilot Training Course**

Session	From	To	Period
Session 1	08:30	10:30	2 hours
Session 2	10:45	12:30	1 hour and 45 min
Session 3	13:30	15:30	2 hours

*Source: JICA Project Team*

**Table 3.6 Schedule of the First Pilot Training Course**

Week No	From	To	Unit Code	Unit Name
1	3 Oct	7 Oct	AURC207103A	Apply safe working practices
2	10 Oct	14 Oct	AURT270278A	Use and maintain workplace tooling and equipment
3	17 Oct	21 Oct	AURE218708A	Carry Out Repairs To Single Electrical Circuits
4	24 Oct	28 Oct	AURE218708A	Ditto
			AURE218676A	Test service and charge batteries
5	31 Oct	4 Nov	AURE320666A	Service and Repair Ignition Systems
6	7 Nov	11 Nov	Ditto	Ditto
7	14 Nov	18 Nov	AURE321171A	Service and Repair Electronic Spark Ignition Engine Management Systems
8	21 Nov	25 Nov	Ditto	Ditto

*Source: JICA Project Team*

### C1-6 Assessment Plan

In a CBT approach, assessment determines whether a trainee has successfully demonstrated competence in each Unit of Competence. In other words, trainees have to demonstrate that they can successfully complete every prescribed task. They can only move on to the next UOC when they have been deemed competent in the unit they are undertaking. Trainers provide progressive assessment of trainees when they are ready to be assessed.

In the implementation of the first pilot training course, the counterpart trainers, with the assistance of the JICA automotive expert, developed an “Assessment Portfolio” based on the

performance criteria. Workbooks which contain questions and exercise were selected as practical tools for assessing each trainee's achievement in the sessions and/or workplace.

JPT has observed that although TVTO has a formal examinations and evaluation system, the progressive assessment of trainees, based on trainees' performance is not that common of a practice.

## Component 2: Equipment and Consumables

### C2-1 Listing Necessary Equipment and Consumables

JPT identified all equipment and consumables needed for delivery of the first pilot training course in March 2009 based on the selection of the UOC in Table 3.4. JPT requested TVTO to procure the equipment and consumables during the absence of JPT in April 2009.

### C2-2 Budgeting & Disbursement

The Deputy of Research and Planning disbursed an amount equivalent to US\$5,000 and the Deputy of Training disbursed an amount equivalent to US\$ 25,000 to TVTC No.4 in the middle of May 2009.

### C2-3 Procurement, Installation and Inspection

TVTC No. 4 assigned an external private agency to procure all prescribed equipment and consumables. Table 3.7 shows the list of equipment needed and procured. Some equipment in the original list were not procured as JPT found the same or similar equipment in TVTC No. 4. Quantities of other equipment were also reduced to cut down on costs, as it was decided that trainees could share certain pieces of equipment. The procurement process of equipment was completed in September 2009. All items were checked and tested to ensure that they were in correct working order. Table 3.8 shows the list of consumables procured.

**Table 3.7 List of Equipment Needed and Procured**

No	Item	QTY Needed	QTY procured or remark
1	Three stage Battery charger	1	1
2	High rate discharge tester carbon pile	1	Purchased similar item
3	Battery Carrier	4	2
4	Crimping tools	16	7
5	Wire strippers	16	7
6	Multimeters	16	7
7	Amp meter 30 amp min \$150	1	1
8	Digital tune oscilloscope	1	1
9	Gas analyser four gas	1	1
10	Fuel pressure/flow gauges	1	1
11	LED test lights	3	3
12	Noid lights	1	1
13	Timing light with adjustable advance	1	1
14	Tune up manuals	1	1
15	Injector flow bench and ultrasonic cleaner	1	1
16	Trailer plugs	16	Provided
17	Coil tester	1	Cancelled, but use one in TVTC 4
18	Scan tool	1	Ditto
19	Inductive amp meter	1	Cancelled
20	Projector screen – portable	1	1

Source: JICA Project Team

**Table 3.8 List of Consumables Procured**

No	Item
<b>For technical uses</b>	
1	Insulated wire various sizes
2	Insulated and solder type terminals various sizes – a wide range readily available
3	Solder – should have ready access to this item
4	Solder wicks
5	Solder paste - this should be on hand already
6	Soldering irons (two students max per iron) 25 and 50 watt
7	Various distributors hall, optical and magnetic - at least three of each type
8	Various batteries for testing - should have
9	Battery spec charts - need to know relevant specifications for the batteries we are using
10	Four/six hydrometers – should have
<b>For Trainees</b>	
11	Overall for all the Trainees - dark blue
12	Safety boots for Trainees
13	Dust coats for the Trainees - light blue
14	Pens and pads for Trainees
15	Mudguard covers
16	Ear plugs
17	Protective gloves
18	Name tags
<b>Others</b>	
19	Attendance roll

Source: JICA Project Team

### Component 3: Course Materials

#### C3-1 Selection of Learning Resources

Two textbooks in Farsi language were selected as the major learning resources for the first pilot training course program. The titles of selected textbooks are listed as below.

**Table 3.9 List of Textbooks for the First Pilot Training Course**

No	Title	Language	Publisher	Unit Cost
1	Motor Vehicle batteries and electrical systems	Farsi	Andishyaran	IRR20,000-
2	Ignition Systems for gasoline engines	Farsi	Andishyaran	IRR16,000-

Source: JICA Project Team

#### C3-2 Development of Workbook

Workbooks in Farsi were developed for both the trainers and the trainees. The original editions of the workbooks were from Australia. The trainers, under the direction of JPT, translated the original editions into Farsi and customized the workbooks to meet Iranian requirements. Examples of customization include:

- ✓ Photos of equipment from the originals used in Australia were changed to photos of the equipment which would be used for the first pilot training course; and
- ✓ “AURC270103A: Apply safe working practices” provides training by studying “The Occupational Health & Safety (OH&S) ACT” in Australia. However, as there was no need for the Iranian trainees to study this act, this was changed to the Iranian OH&S act.

### C3-3 Development of Assessment Tools

Following the strategy as shown in the section C1.6, JPT applied the workbooks as samples of assessment tools used in the Australia CBT system. Each workbook contains appropriate assessment tools such as written tests and practical task checklists.

## Component 4: Training of Trainers

### C4-1 Scheduling

JPT developed a schedule and program of the training of trainers as follows.

- ✓ Period: 28<sup>th</sup> June – 5<sup>th</sup> Aug (6.5 weeks), Saturday to Wednesday
- ✓ Opening time: 8:30
- ✓ Closing time: 16:00
- ✓ Venue: TVTC NO. 4 workshop or TVTO office

Training included

- ✓ Upgrading of technical skill levels of trainers as perceived necessary;
- ✓ Customization of Units of Competence;
- ✓ Training Course Schedule;
- ✓ Assessment Plan and Assessment Tools;
- ✓ Learning Resources and a guide for the development of Learning Resources;
- ✓ Evaluation questionnaires; and
- ✓ Delivery method.

Final determination of the course content for the training of trainers was based on the existing technical competency of the trainers, and the anticipated levels of the target trainees selected for the first pilot training course.

**Table 3.10 Schedule and Contents of Training of Trainers**

<b>Date</b>	<b>Activity</b>
1st Week (28 Jun.–1 Jul)	<ul style="list-style-type: none"> <li>• Demonstration of how to deliver in CBT format:               <ul style="list-style-type: none"> <li>➤ Apply safe working practices</li> <li>➤ Use and maintain workplace tooling and equipment</li> </ul> </li> <li>• Construction of teaching aids:               <ul style="list-style-type: none"> <li>➤ Apply safe working practices</li> <li>➤ Use and maintain workplace tooling and equipment</li> </ul> </li> </ul>
2nd Week (4–8 Jul)	<ul style="list-style-type: none"> <li>• Demonstration of how to deliver in CBT format:               <ul style="list-style-type: none"> <li>➤ Test, service and charge batteries</li> </ul> </li> <li>• Construction of teaching aids:               <ul style="list-style-type: none"> <li>➤ Test, service and charge batteries</li> </ul> </li> </ul>
3rd Week (11–15 Jul)	<ul style="list-style-type: none"> <li>• Demonstration of how to deliver in CBT format:               <ul style="list-style-type: none"> <li>➤ Repair ignition systems</li> </ul> </li> <li>• Construction of teaching aids:               <ul style="list-style-type: none"> <li>➤ Carry out repairs to single electrical circuits</li> </ul> </li> </ul>
4th Week (18–22 Jul)	<ul style="list-style-type: none"> <li>• Demonstration of how to deliver in CBT format:               <ul style="list-style-type: none"> <li>➤ Repair ignition systems</li> </ul> </li> <li>• Construction of teaching aids:               <ul style="list-style-type: none"> <li>➤ Repair ignition systems</li> </ul> </li> </ul>
5th Week (25–29 Jul)	<ul style="list-style-type: none"> <li>• Demonstration of how to deliver in CBT format:               <ul style="list-style-type: none"> <li>➤ Service and repair electronic spark ignition engine management systems</li> </ul> </li> <li>• Construction of teaching aids:               <ul style="list-style-type: none"> <li>➤ Repair ignition systems</li> </ul> </li> </ul>

<b>Date</b>	<b>Activity</b>
6th Week (1–5 Aug)	<ul style="list-style-type: none"><li>• Demonstration of how to deliver in CBT format:<ul style="list-style-type: none"><li>➤ Service and repair electronic spark ignition engine management systems</li></ul></li><li>• Construction of teaching aids:<ul style="list-style-type: none"><li>➤ Service and repair electronic spark ignition engine management systems</li></ul></li><li>• Review all workshops</li><li>• Gap between TT and pilot training course</li><li>• Set list of tasks for the trainers</li></ul>

*Source: JICA Project Team*

## **C4-2 Implementation of Training of Trainers**

The training of trainers was implemented on schedule. During the implementation of the Train the Trainer course, the JICA automotive expert realized that the base technical skills of automotive electricity of all the counterpart members except one were not sufficient for the delivery of these units of competence in the pilot training course. Therefore, the JICA automotive expert spent considerable time upgrading their skills. He also provided guidance on delivering training using appropriate strategies and methods. All training was completed on time.

## **Component 5: Recruitment of Trainees**

### **C5-1 Plan of Recruitment**

Considering the contents of the course and the estimated schedule of delivery of the first pilot training course, the recruitment plan was developed as follows.

#### **Target Trainee**

JPT intended to select 10–14 trainees for the first pilot training course. It was decided that the prospective trainee group would comprise a minimum of five trainees from the automotive service sector and the rest with a minimum qualification of either a high school degree, technical school degree, or the equivalent level of knowledge and skills.

At first the intention of the pilot training course was to target trainees with no experience of working in the automotive service and repair sector, but later on it was decided that, as TVTO had requested, in-service workers would be included. The other criteria for the selection of trainees for the first pilot training course was a keen interest in the specialist modules and the ability to attend all sessions on a full time basis.

In order to make sure that the selection process was fair and equitable, all the applicants were required to undertake a pre-test comprising mathematical, literacy (Farsi) and technical-based questions.

#### **Scheduling of Recruitment**

The following steps were identified for recruitment:

1. Announcement to industry (at IRG Kick off meeting)
2. Planning: Recruiting channels, registering, pre-test, screening, etc.
3. Identification of recruitment channels
4. Development of Notification Flyer
5. Provision of information from TVTO to Tehran Provincial Office
6. Announcement at TVTCs of Tehran Provincial Office
7. Applicants registration

8. Prerequisite Assessment (Pre-test)
9. Screening and confirm trainees

### The Recruitment Channels

JPT together with counterparts and IRG members identified five recruitment channels as follows:

**Table 3.11 Type of Recruiting Channels Identified**

No	Channel identified	Remarks
1	Conventional recruiting channels of TVTO (Channel of TVTC)	Each TVTC has recruiting channels and most trainees can be recruited by this channel.
2	Industry Reference Group member companies	JPT can request them to dispatch trainees to the first pilot training course. The biggest disadvantage of this channel is that it would be difficult for companies to dispatch their employees for 2 months for a full-time course due to lack of human resources.
3	Independent repair workshops and car dealers	JPT can provide the recruitment flyers and request them to dispatch employees or new employee candidates.
4	Job matching agents	There are some private job matching agents in Tehran. They sometimes introduce trainees to TVTO before the agents find jobs for them.
5	CDC's original channel	CDC will introduce some trainees through their channels to automotive companies in their activities.

*Source: JICA Project Team*

### **C5-2 Development of Course Notification Flyer**

A notification flyer was developed in order to have relevant applicants apply for the course. The flyer comprised the following information:

- ✓ Title of the Course;
- ✓ Objective;
- ✓ Expected outcome and carrier path design;
- ✓ Contents (6 unit of competencies);
- ✓ Methodology of training;
- ✓ Period (Date and Time);
- ✓ Venue;
- ✓ Trainers;
- ✓ Target trainees;
- ✓ Recruitment procedure; and
- ✓ Others.

### **C5-3 Recruitment and Screening**

Several channels, as described in Table 3.11, were used to recruit trainees for the pilot training course. The Project provided completed flyers (150 copies) to TVTC No.4 to recruit trainees (Channel No. 1) and had 21 applicants from this channel. The Project also requested the IRG coordinator to recruit from industries such as Mega Motors and other companies (Channel No. 2 & 3). As a result, the total number of applications have reached 31. This number comprised 21 through general applications and 10 from the private sector.

Pre-tests and interviews were carried out as indicated in the following table.

**Table 3.12 Implemented Date of Pre-Test and Interview for Applicants**

Channel	Pre-Test	Interview
Applicants from channel of TVTC No.4	27 Sep. 2009	27 and 28 Sep. 2009
Applicants from channel of IRG coordinator	29 Sep. 2009	29 Sep. 2009

Source: JICA Project Team

Selection was conducted on 30th September 2009 and the CDC was notified of the results immediately. The CDC suggested replacing three candidates with others. The reasons given were that their pre-test scores were low, their job status was not acceptable and their educational certification was inadequate. The suggestion was accepted and the candidates were replaced with others. The successful applicants were notified of their selection on 30th September 2009.

## Component 6: Monitoring and Evaluation

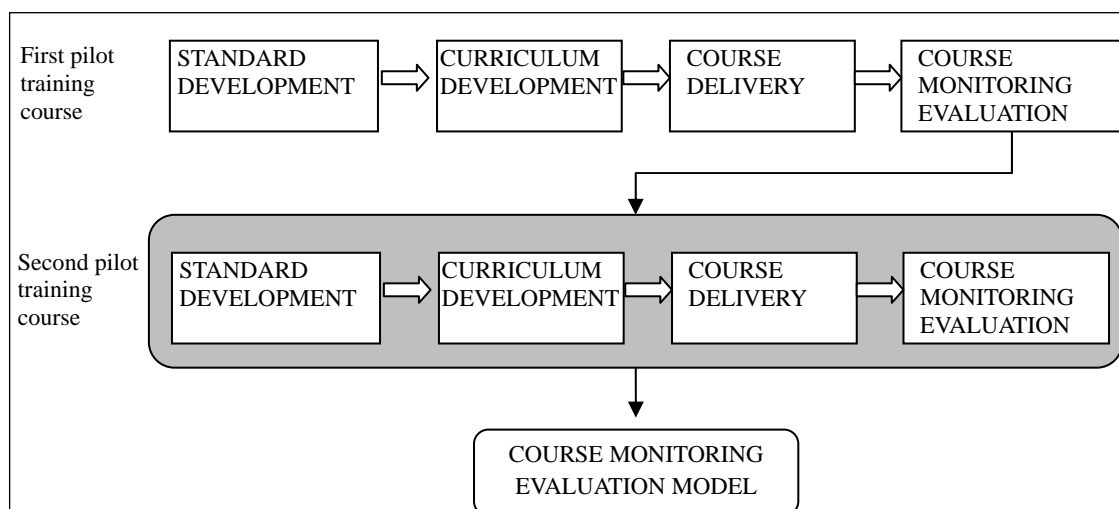
### C6-1 Development of Framework

#### Framework of M&E

The objective of Monitoring and Evaluation (M&E) for TVT is to provide feedback for improving the whole training management cycle. In this Project the following framework for M&E was developed:

- ✓ Monitoring and evaluating the delivery of the first pilot training course to provide feedback and thus improve development and delivery of the second pilot training course
- ✓ Developing a model of M&E focusing on continuous improvement of course delivery by using the experience gained through the M&E activities conducted in relation to both pilot training courses.

This concept is illustrated in Figure 3.3.



Source: JICA Project Team

**Figure 3.3 The M&E Framework of the Pilot Training Courses**



### Activity of M&E

Considering the duration of the first pilot training course (2 months) together with other schedule constraints, JPT and the CPs decided to conduct four types of M&E activity, namely 1) On-Going Course Monitoring, 2) Mid-term Course Monitoring, 3) Course Completion Monitoring, and 4) Follow-up Monitoring of trainees in the workplace. A suitable schedule for the conduct of the 4 types of monitoring was established. Table 3.13 outlines these four types of monitoring.

**Table 3.13 Four Types M&E Activities of the First Pilot Training Course**

Type	Timing	Objectives
On-going Course Monitoring	Daily	<ul style="list-style-type: none"> <li>• Identification of issues on a daily basis and actions for on-going modification.</li> <li>• Collection of data for course evaluation</li> </ul>
Mid-term Course Monitoring	Middle of the course	<ul style="list-style-type: none"> <li>• Identification of issues in the course delivery and actions for on-going modification for the latter half of the training course.</li> <li>• Collection of data for course evaluation</li> </ul>
Course Completion Monitoring	On the completion of the course	<ul style="list-style-type: none"> <li>• Identification of issues and achievements in the course delivery and actions for improvement of the second pilot training course.</li> <li>• Collection of data for a course evaluation</li> </ul>
Follow up Monitoring	Two months after the course completion	<ul style="list-style-type: none"> <li>• Evaluation of the course by analyzing the collected data in order to identify issues and strengths in the course and improve implementation of the second pilot training course.</li> </ul>

Source: JICA Project Team

### **C6-2 Development of Tools**

#### Defining Quality Indicators

As a fast-track approach for defining industry competency standards was used in the Project (importing from Australia), the Australian M&E process for developing an appropriate M&E model was adopted.

The Australian Quality Training Framework (AQTF) is a national set of standards which has been developed to assure nationally consistent, high-quality training and assessment services for the clients of Australia's vocational education and training system. Using the AQTF as a guide, the following quality indicators were used for the various sub-components in the M&E process:

- ✓ Training Delivery;
- ✓ Trainers;
- ✓ Training Support Environment;
- ✓ Trainees' Learning Experience;
- ✓ Training Results; and
- ✓ Performance in the Workplace.

JPT and CPs (trainers) broke down the above sub-components into quality indicators as shown in Table 3.14.

**Table 3.14 List of Quality Indicators**

<b>Sub-component</b>	<b>Quality Indicator</b>
1. Training Delivery	<ul style="list-style-type: none"> <li>• Course Content</li> <li>• Trainee Assessment</li> <li>• Learning Materials</li> <li>• Training Equipment</li> <li>• Clear expectations</li> </ul>
2. Trainer	<ul style="list-style-type: none"> <li>• Instructional Skills</li> <li>• Technical knowledge Interpersonal Skills</li> <li>• Course Management Skills</li> </ul>
3. Training Support Environment	<ul style="list-style-type: none"> <li>• Room</li> <li>• Facilities</li> <li>• Administration and support</li> <li>• Safety</li> </ul>
4. Trainee's Learning Experience	<ul style="list-style-type: none"> <li>• Achievement</li> <li>• Motivation</li> <li>• Overall Satisfaction</li> </ul>
5. Training Results	<ul style="list-style-type: none"> <li>• Enrolment Rate</li> <li>• UOC Completion Rate (Achievement)</li> <li>• Employment Rate</li> </ul>
6. Performance in Workplace	<ul style="list-style-type: none"> <li>• Performance of graduates in the workplace</li> </ul>

Source: JICA Project Team

### Creating M&E Tools

After determining the above quality indicators, the JPT and CPs developed several tools such as self-check sheets and questionnaires for each type of M&E activity as illustrated in Table 3.15. Each tool was translated into Farsi with support from the CPs.

**Table 3.15 List of Monitoring and Evaluation Tools Used for the First Pilot Training Course**

<b>Type of M&amp;E</b>	<b>Tools developed</b>
On-going Course Monitoring	<ul style="list-style-type: none"> <li>• On-going Trainer Self-check Sheet</li> </ul>
Mid-term Course Monitoring	<ul style="list-style-type: none"> <li>• Mid-term Trainee Feedback Questionnaire</li> </ul>
Course Completion Evaluation	<ul style="list-style-type: none"> <li>• Course Completion Trainee Feedback Questionnaire</li> </ul>
Follow-Up Survey	<ul style="list-style-type: none"> <li>• Graduate Feedback Interview Sheet</li> <li>• Employers' Feedback Interview Sheet</li> </ul>

Source: JICA Project Team

JPT carried out trial tests at TVTC No. 4 with two groups of five trainees to finalize the questionnaire. Some questions were revised due to low appropriateness found by this trial test.

### **C6-3 Training for M&E**

JPT organized a workshop on 26 September 2009 for all CPs to brief them about conducting an M&E process. The focus of the workshop was on:

- ✓ The Framework and activities of the M&E process used in the first pilot training course;
- ✓ The main objective of the M&E process in a CBT approach which is to evaluate and improve course delivery rather than to conduct a performance assessment of the trainers;

- ✓ The necessity of creating a congenial atmosphere between trainers and evaluators in order to come up with constructive suggestions for improving the course; and
- ✓ The importance of maintaining consistent and accurate trainee assessment records.

Exercises on how to analyze the results of the questionnaires were also conducted at the workshop.

#### **C6-4 Implementation of M&E**

The following four M&E activities were carried out in relation to the pilot training course according to a defined schedule.

##### On-going Course Monitoring

On-going Course Monitoring was carried out by CPs using a self-check sheet on a daily basis. JPT monitored the CPs and consulted with them frequently to support their monitoring activity. One of the findings and actions taken to improve the first pilot training course was that the trainees' wide range of technical levels created a gap in the progress among the trainees and made class management difficult. One approach that the trainers used to resolve this difficulty was by organizing the delivery so that some advanced trainees taught other trainees.

This M&E activity identified several difficulties in course delivery and contributed to the identification of actions to be taken for on-going modification. It was also found that CPs had difficulty with some documentation work required for CBT course delivery such as the maintenance of trainee assessment records.

##### Mid-Term Course Monitoring

In the middle of the course, JPT and CPs collected feedback data from the trainees about their satisfaction of the course through a questionnaire. The analyzed result was used for improving the latter half of course delivery.

It was found that nine trainees showed overall satisfaction<sup>5</sup> with the course, while three were not fully satisfied<sup>6</sup>. The main reason for dissatisfaction with the course was that advanced trainees were not satisfied with the course content which was essentially designed for an entry-level employee.

The discussion with the trainers also identified some issues related to course delivery. For example, there was some concern that the training resources were not satisfactory<sup>7</sup>. The reason given for this perception was that the workbooks, which were translated from Australian editions, did not provide sufficient information about the tasks. In response, the CPs distributed Farsi learning materials but without sufficient consistency. One of the trainee's comments supported the view that textbooks should have more detailed explanation and information. Based on this result, the CPs developed and distributed necessary materials for the latter half of the course. On the whole, however, it was found that all the trainees were satisfied with the quality<sup>8</sup> of the trainers.

This M&E activity reconfirmed the findings of the on-going course monitoring that was conducted. This enabled modifications to be made to course delivery and thereby improved the course quality.

<sup>5</sup> They rated "Overall Satisfaction" equal or more than 15 points in 0–20 scales (0 = Strongly Disagree, 5 = Disagree, 10 = Neutral, 15 = Agree, 20 = Strongly Agree). This scale was used for the Mid-Term Monitoring.

<sup>6</sup> They rated "Overall Satisfaction" below 15 points (= Agree).

<sup>7</sup> They rated "Learning materials" 12 points. (below 15 = Agree)

<sup>8</sup> All the trainees rated more than 15 points (= Agree).

### Course Completion Monitoring

Course Completion Monitoring was carried out immediately after the completion of the course. JPT collected feedback data from the trainees about their satisfaction of the course through administering a questionnaire. In addition, data relating to the “Result” sub-component of quality indicator was collected through course documentation check. After data collection, JPT organized a series of meetings with CPs (trainers) to analyze collected data.

The following is a summary of the completion rates for Units of Competency undertaken in the first pilot training course:

**Table 3.16 Number of Trainees Completed in each UOC**

UOC	No. of trainees completed
1. Apply safe working practices	12
2. Use and maintain workplace tooling and equipment	12
3. Test, service and charge batteries	12
4. Carry out repairs to single electrical circuits	11
5. Repair ignition systems	11
6. Service and repair electronic gasoline engine management systems	11

Source: JICA Project Team

Course completion monitoring identified some issues in the course delivery. For example, there was reconfirmation that the wide range of trainees’ technical levels had a negative impact on the course delivery. The key issue of the trainees’ disparate levels was confirmed in the course completion monitoring activity. Quantitative data gathered in this activity corresponded with verbal comments that were obtained in ongoing course monitoring. The trainees who had prior work experience were dissatisfied with the course<sup>9</sup> whereas trainees with no work experience generally showed satisfaction<sup>10</sup>.

Based on this result, the Project tried to recruit trainees with similar backgrounds for the second pilot training course. On the other hand, it was found that the trainees were satisfied with the trainers’ quality and their own learning experience<sup>11</sup>.

### Follow-Up Monitoring

Follow-Up Monitoring was conducted two months after the completion of the course in order to determine the outcomes of the course and provide feedback to improve delivery of the second pilot training course. The CPs, supported by JPT, conducted telephone interviews with all the graduates about their employment situation, and face-to-face interviews with five selected graduates who were working as auto mechanics. Interviews were also conducted with the graduates’ employers about their performance at the workplace.

The graduates and their employers in the auto mechanic field showed overall satisfaction with their performance of the technical skills incorporated in the six UOCs delivered in the course<sup>12</sup>. There was less satisfaction with the two UOCs of “Safety” and “Ignition Systems”<sup>13</sup>. Dissatisfaction with the “Safety” unit was perhaps because this has not yet been recognized as

<sup>9</sup> This group rated “Overall Satisfaction” 14 points in 0–20 scales (0 = Strongly Disagree, 5 = Disagree, 10 = Neutral, 15 = Agree, 20 = Strongly Agree). This scale was used for the Course Completion Monitoring.

<sup>10</sup> This group rated “Overall Satisfaction” 17 points (more than 15 = Agree)

<sup>11</sup> The trainees rated “Trainer” sub-component 17 points and “Trainee’s Learning Experience” sub-component 16 points (more than 15 = Agree)

<sup>12</sup> Both the graduates and employers rated 3.1 points in 1–4 scales (1 = Bad, 2 = Not Good, 3 = Good, and 4 = Very Good). This scale was used for the Follow-up Monitoring.

<sup>13</sup> Both the graduates and the employers rated 2.9 points for the “Safety” and 2.7 for the “Ignition Systems” respectively (below 3 = Good)

an important issue by employers and was not considered an essential competency to perform effectively in the work places. The “Repair Ignition System” UOC was perhaps seen as unnecessary because this task was generally not performed. (In large service and repair shops the custom is usually to replace ignition systems when they are faulty).

Three employers out of five who were interviewed commented that practical work experience in an actual working situation should ideally be included in the training course. This indicated that employers expected VET providers to provide more practical training by organizing a course including an industry attachment program. The Project attempted to introduce an industry attachment program in the second pilot training course.

The following is a summary of the employment situation of the graduates:

- ✓ Four graduates were newly employed, one was employed as an auto mechanic, two were involved in automotive related jobs though not as auto mechanics and one was in a non-automotive job;
- ✓ Four graduates recruited through IRG members went back to their company as auto mechanics; and
- ✓ The four remaining graduates had neither been employed nor had undertaken further training.

The following is a summary of final outcomes and issues of the first pilot training course:

- ✓ The 6 competencies (skills and knowledge) incorporated in the UOCs delivered in the first pilot course were achieved by the graduates in industry without major problems. Thus it can be concluded that training delivery was successful;
- ✓ Some major issues related to course delivery such as lack of training equipment, inappropriate workbooks, and the wide range of trainees’ knowledge and skill levels made course delivery difficult. It was expected that if these issues were resolved, the course delivery could be more efficient; and
- ✓ The CPs successfully delivered the course with a CBT approach, although some aspects of course delivery such as keeping accurate records of trainee assessment needed to be improved.

### Feedback for Conduct of the Second Pilot Training Course

JPT decided to modify the M&E model for the second pilot training course based on the results of the M&E from the first pilot training course as shown below:

- ✓ Trainee assessment records were not properly filled out on a daily basis in the beginning but this problem was not identified by the On-Going Course Monitoring in which the trainers themselves checked the records. Thus JPT decided to change the role of on-going course monitoring from an internal monitoring approach to an external monitoring approach (monitored by JPT). It was decided that the JPT would pilot this revised model of monitoring in the second pilot training course; and
- ✓ It was found that the implementation of a mid-term course monitoring process duplicated a number of activities that were part of the on-going course monitoring process. Thus JPT decided to eliminate mid-term course monitoring from the M&E model and not include it in the second pilot training course.

### Component 7: Implementation of the Course

The course commenced on 03 October 2009 as planned and concluded on 25 November 2009 as planned. Among the initial number of attendants (fourteen), twelve achieved competence and two were unable to successfully complete all prescribed units of competence.

### Certificate

The JICA Automotive expert instructed the counterparts (trainers) to make a brief report on each trainee about the achievement of each UOC, motivation, and attitudes after completion of the first pilot training course.

Following that, JPT organized a meeting for final statements of achievement for each trainee. Certificates of course completion were prepared based on this final assessment.

The certificates that were awarded contain the course title, duration, and those titles of UOC as judged as “successfully completed” for each trainee. In other words, there was no general “certificate of completion of training program in total”, but each certificate clearly indicated which UOCs were completed by each individual trainee. The certificates for the first pilot training course were authorized both by Project Manager (Mr. SABERI) and Chief Advisor (Mr. MOTOMURA) and contained their signatures.

The conferment ceremony was conducted on 13th December 2009 at TVTC No. 4 and the certificates were presented to the trainees by Mr. NAJIB ZADEH, Principal of TVTC 4.

### **3.5 The Second Pilot Training Course**

The second pilot training course was conducted between 17 July and 20 September 2010 after a successful 4-week Train the Trainer course run for the 4 CPs.

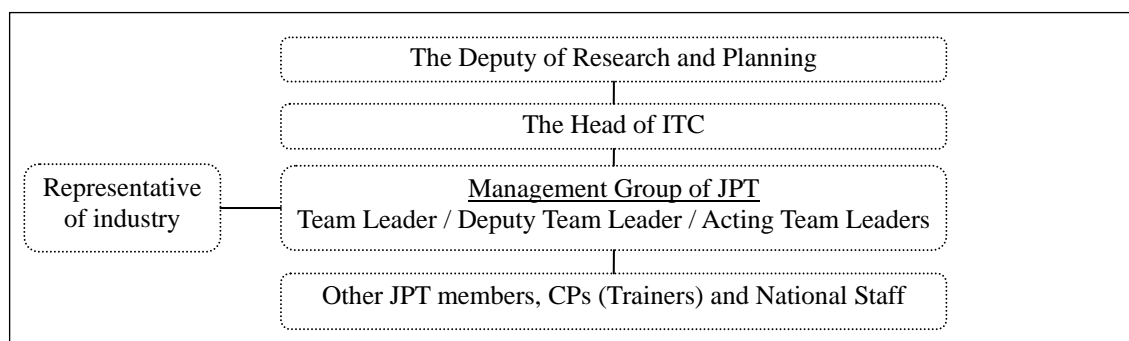
Unforeseen circumstances contributed to changes in the scheduling of the course which was reduced from 8 weeks to 6 weeks of actual delivery time.

To address the issue of a shortened course, the incorporation of an Industry Attachment component proved to be extremely beneficial in enabling the trainees to apply pilot training course information to real workplace situations. Trainee satisfaction with the course was generally high, and many lessons have been learnt in implementing CBT in a TVTO setting.

The following is a description of the main features of the second pilot course:

#### **3.5.1 Implementation Structure of the Second Pilot Training Course**

The implementation structure of the second pilot training course, compared with the first pilot training course, was made simpler as the project office and the venue for the course were in the same place (i.e. ITC).



Source: JICA Project Team

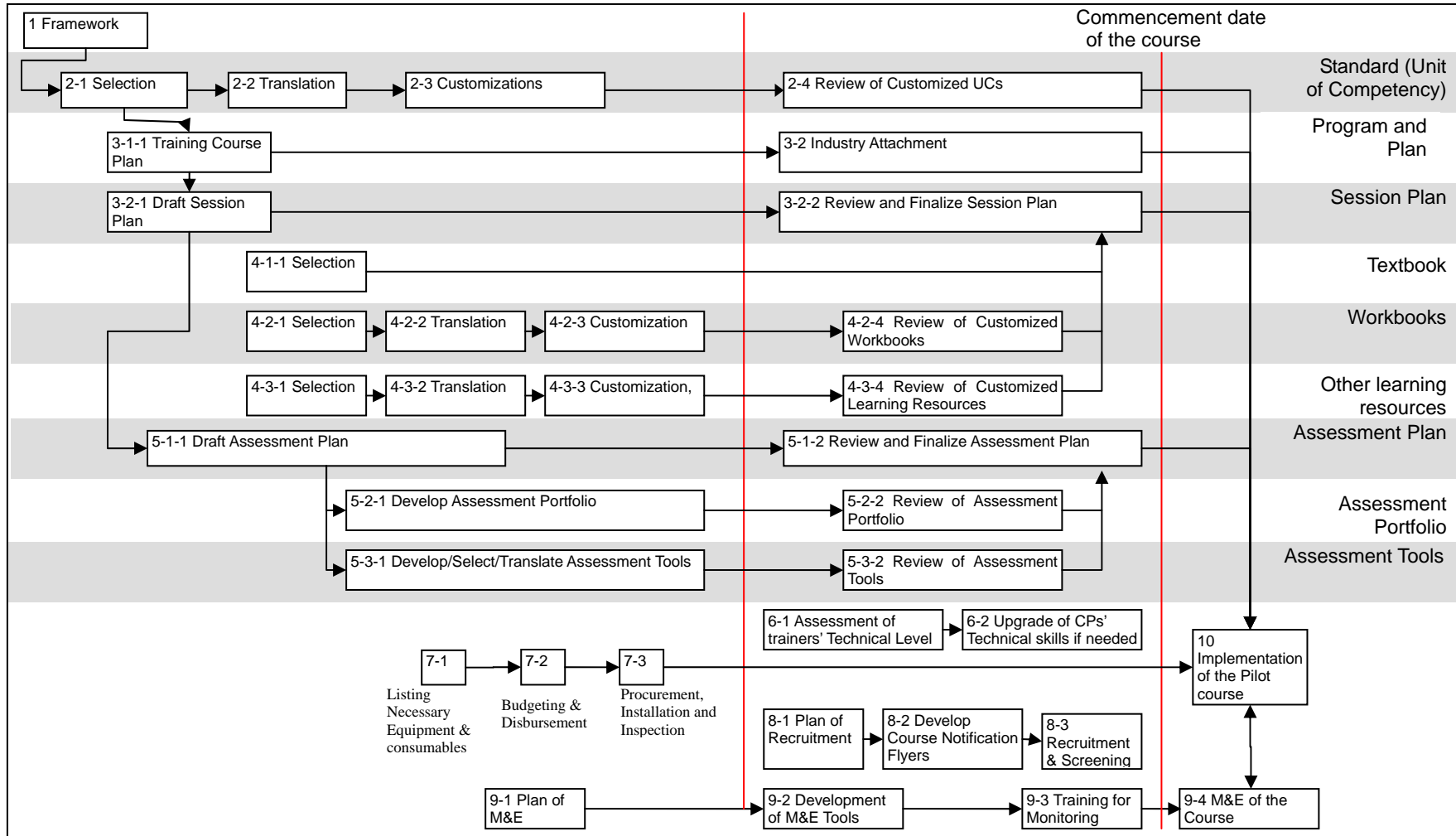
**Figure 3.4 Implementation Structure of the Second Pilot Training Course**

### 3.5.2 Process of the Second Pilot Training Course

Tasks to be implemented during the second pilot training course were broken down into 9 components and each component was broken down into several tasks as shown below.

Component 1	Course Framework
Component 2	Standard (Unit of Competence)
Task 2-1	Selection
Task 2-2	Translation
Task 2-3	Customizations
Task 2-4	Review of Customized UOCs
Component 3	Program and Plan
Task 3-1	Training Course Plan
Task 3-2	Industry Attachment
Component 4	Curriculum Development
Task 4-1	Learning and Assessment guide
Task 4-2	Interpret Training Information
Task 4-3	Identify Training Tasks
Task 4-4	Consult with Industry
Task 4-5	Develop Training Resources
Task 4-6	Construct Training Plan
Component 5	Assessment
Task 5-1	Assessment Methods
Task 5-2	Assessment Tools
Task 5-3	Assessment Portfolio
Component 6	Recruitment of Trainees
Task 6-1	Recruitment Plan
Task 6-2	Selection Criteria
Task 6-3	Selection Process
Component 7	Course Delivery
Task 7-1	Timetabling
Task 7-2	Teaching Methodology
Task 7-3	Facilities and Resources
Component 8	Monitoring and Evaluation (M&E)
Task 8-1	Plan of M&E
Task 8-2	Development of M&E Tools
Task 8-3	Training for Monitoring
Task 8-4	Monitoring and Evaluation of the Course
Component 9	Implementation of the Course

Figure 3.5 shows a schedule network diagram (by Precedence Diagramming Method) used for the second pilot training course.



Source: JICA Project Team

**Figure 3.5 Schedule Network Diagram for the Second Pilot Training Course**



The following explains the details of the progress of each component for second pilot training course.

### Component 1: Course Framework

JPT suggested some changes to the initially proposed framework for the second pilot training course in December 2009 as shown in Table 3.17 below.

Considering the background and expertise of the trainers who had already collaborated with JPT, the automotive service and repair sector (the same as in the first pilot training course) was recommended as the area to be considered for the second pilot training course.

It was felt that the experience of these counterparts in the implementation of the first pilot training course would greatly enhance the quality of the second pilot training course. It was also considered that the continuous involvement of these counterpart members was imperative to achieving the Project objectives. This recommendation was accepted by the TVTO.

**Table 3.17 Framework of the Second Pilot Training Course**

<b>Venue:</b>	ITC Karaj
<b>Course Selection:</b>	Automotive: Retail, Service and Repair Automotive Maintenance – Part 1
<b>Course Duration:</b>	2 months (including Industry Attachment)
<b>Expected Trainers:</b>	Messrs. Salimian, Khalilzadeh, Rafati, Nikooravan (Mentored by Mr E DeGabriele)
<b>Expected Trainees:</b>	Novice
<b>Training of Trainers:</b>	May 2010 (4 weeks)

*Source: JICA Project Team*

### Increase in the Number of Counterparts (Trainer Level)

With regard to assigning counterparts (at trainer levels), JPT advised in December 2009 that increasing the number of counterparts for the second pilot training course so that there would be greater technology and conceptual transfer would benefit CDC/TVTO and add to the sustainability of the Project.

The suggestion that an additional four (4) trainers from the Korean International Cooperation Agency (KOICA) project should be assigned as counterparts to the JICA Project was once confirmed by the project manager during the meeting on 21 December 2009, but this suggestion could not be realized.

In June 2010, in accordance with the decision of the project office's relocation to Karaj ITC, TVTO suggested adding additional CPs from ITC to the Project, but this also did not occur.

### Training Venue

The previous-Project Manager, Mr. Saberi, decided in December 2009 that TVTC No. 4 would be used as a training venue again for the second pilot training course. The other possibility was using the venue for the TVTC No. 18 (KOICA project site) but this project site was not ready when the second pilot training course was supposed to commence. Eventually the training venue was changed to the ITC as the whole project location was moved to the ITC in July 2010.

## Component 2: Standard (Unit of Competence)

### C2-1 Selection of Units of Competence

Based on the framework presented in Table 3.17, the basic skill sets consisting of 21 competency units were selected from the Automotive Retail, Service and Repair Training Package. These were developed in consultation with IRG, both by direct discussions and questionnaires distributed in the IRG meetings.

The questionnaire sheets consisted of a list of 21 selected units of competence and their brief descriptions. Based on discussions and an exchange of opinions and ideas, the 13 IRG members evaluated the 21 proposed units of competence by priority. All units of competence were highly prioritized as all these skills were assumed as essential for any type of workshop function, as fundamental and common competencies.

In consideration of the available time of the counterpart trainers to translate and customize the workbook in their preparation period, 14 units were prioritized for development in March 2010. However, in May 2010, due to the substantial amount of time spent on the mutual agreements and administrative procedures in order to relocate to the ITC, the commencement of the second pilot training course was delayed by two (2) weeks, from the 3<sup>rd</sup> of July to the 17<sup>th</sup> of July. This resulted in a reduction in the course length to 6 weeks, which led to a reduction in the number of Unit of Competence (UOCs) to 10. The pilot training course was then scheduled to be held between July and mid-September 2010, titled as “Part 1”.

Table 3.18 shows the 10 selected UOC for the part 1, or second pilot training course.

**Table 3.18 Units of Competence Selected for the Second Pilot Training Course**

Unit Code	Unit Title	Standard Hours
AURC251356A	Read in the workplace	20
AURC270103A	Apply safe working practices	20
AURT201170A	Inspect and service engines	20
AURT203170A	Inspect and Service petrol fuel systems	15
AURT210170A	Inspect and service braking systems	20
AURT215170A	Inspect and service steering systems	10
AURT207170A	Inspect and Service Transmissions (Automatic)	10
AURT270278A	Use and maintain workplace tooling and equipment	20
AURE218676A	Test, service and charge batteries	15
AURE218708A	Carry out repairs to single electrical circuits	40

Source: JICA Project Team

### C2-2 Translation of Units of Competence

The translation of the units of competence for the second pilot training course was done by the trainers and JPT from January to April 2010.

### C2-3 Customization of UOCs

The UOCs underwent constant customization through Trainers’ Training during which the counterparts were assigned to develop workbooks under the close guidance and consultation by the Automotive Expert and the other JPT experts.

## C2-4 Review of Customized UOCs

The UOCs were customized to be approved by the industry in July 2010. Customization of the UOCs was reviewed after the successful completion of the second pilot training course in September 2010.

The final review examined:

- ✓ Appropriateness of tasks selected;
- ✓ Scope and depth of tasks performed;
- ✓ Quality, scope and depth of underpinning knowledge;
- ✓ Adequacy of support materials; and
- ✓ Assessment tools and methods for effectiveness and suitability.

## Component 3: Program and Plan

### C3-1 Training Course Plan (Curriculum)

The original plan for the second pilot training course included the delivery of 21 UOCs, but this number was reduced to 14 due to the shortage of available time. A further reduction was done by the reduction of counterparts from the proposed 8, to a final 4 and the time constraints caused by the administrative changes. The final course plan was to deliver 10 UOCs as shown in Table 3.18. The selection was done in accordance with the progress of workbooks and in relation to the interests of trainees. These 10 UOCs are the part of “Automotive Maintenance Course.” The list also includes 3 units delivered in the first pilot training course. They were seen as necessary for a completely new and different group of trainees. As the trainees selected for the second pilot training course were assumed to be inexperienced, they were required to go through these basic units as new entrants into the Level 2 course.

The course title was determined as “Automotive Maintenance Course – Part 1”.

Table 3.19 and Table 3.20 indicate the timetable for second pilot training course and was divided into 2 blocks which were separated by a 3 week Industry Attachment component. Session hours for Block 2 were reduced slightly to accommodate the fasting period of Ramadan.

**Table 3.19 Timetable for Second Pilot Training Course (Block 1)**

BLOCK 1			
17 <sup>th</sup> July – 28 <sup>th</sup> July 2010			
Week	Date	Session 1	Session 2
Week 1	July 17	Introduction + Safety (ED)	Safety (R)
	18	Safety (ED)	Tools and Equipment (S)
	19	Safety (R)	Tools and Equipment (S)
	20	Engines (S)	Tools and Equipment (S)
	21	Engines (S)	Tools and Equipment (S)
Week 2	24	Engines (S)	Tools and Equipment (S)
	25	Engines (S)	Engines (S)
	26	Engines (S)	Engines (S)
	28	Read in Workplace (R)	Read in Workplace(R)

Start: 8.30am – Finish: 3.00pm (lunch 1 hour)

(K): Mr. Khalilzade (R): Mr. Rafati (S): Mr. Salimian (N): Mr. Nikooravan (ED): Mr. DeGabriele

Source: JICA Project Team

**Table 3.20 Timetable for Second Pilot Training Course (Block 2)**

<b>BLOCK 2</b> 21 <sup>st</sup> Aug – 15 <sup>th</sup> Sept 2010 (Ramadan)			
Week	Date	AM	PM
Week 1	Aug 21	Petrol (K)	Petrol (K)
	22	Petrol (K)	Petrol (K)
	23	Petrol (K)	Petrol (K)
	24	Petrol (K)	Petrol (K)
	25	Petrol (K)	Petrol (K)
Week 2	28	Petrol - EFI (K)	Petrol EFI (K)
	29	Petrol - EFI (K)	Petrol - EFI (K)
	30	Brakes (K)	Brakes (K)
	31	Brakes (K)	Brakes (K)
Week 3	Sept 4	Brakes (K)	Brakes (K)
	5	Brakes (K)	Brakes (K)
	6	Auto Trans (R)	Auto Trans (R)
	7	Auto Trans (R)	Auto Trans (R)
	8	Auto Trans (R)	Auto Trans (R)
Week 4	11	Steering (S)	Steering (S)
	12	Steering (S)	Steering (S)
	13	Electrical (N)	Electrical (N)
	14	Electrical (N)	Electrical (N)
	15	Read in Workplace (R)	Read in Workplace (R)

Start: 8:30– Finish: 14:00

(K): Mr. Khalilzade (R): Mr. Rafati (S): Mr. Salimian (N): Mr. Nikooravan (ED): Mr. DeGabriele

Source: JICA Project Team

In July 2010, one of the counterparts, Mr Nikooravan, left TVTO to take up a scholarship overseas. It was agreed that an ITC Automotive instructor with Automotive Electrical experience be designated to deliver the Batteries and Electrical units.

The particular instructor also attended a three day workshop—“Introduction to CBT”—prior to delivering the Electrical units, giving him a good understanding of CBT methodology.

### **C3-2 Industry Attachment**

The purpose of the industry attachment was to provide the trainees with a realistic view on the Automotive Maintenance and Servicing occupation requirements and, more specifically, to demonstrate the range of tasks that are to be performed under real work situations.

CBT is about training a person to perform a range of tasks that make up the job; not just delivering theory that has been developed by a training provider.

Through the period of industrial attachment, trainees were required to observe or experience the practical applications of what is taught at a TVTC. It was expected to become the link between theory and what is actually done in the workplace through hands-on experience.

#### *Industry Attachment Implementation*

The allocation of trainees to industry workshops was discussed at the IRG meeting held on the 5<sup>th</sup> of July 2010. Following this meeting, another meeting was held at SaipaYadak for IRG members and CPs. The purpose of the meeting was to decide who would do what tasks and where. A person from MegaMotor (Mr Mohamadi) and two from Saipa Yadak (Mr Ghodarzi and Mr Nabaei) attended.

One outcome of this meeting was the development of a schedule indicating the units or tasks each company workplace would address.

The meeting provided the opportunity for industry to validate the tasks developed from the units of competence. Some minor adjustments were made and the industry members assured that they would provide the trainees with worthwhile experiences.

JPT gave an assurance that the trainees would be monitored by the counterparts who would be in constant communication with workshop supervisors. At Mega Motor's request a schedule was drawn up to ensure 2 instructors/counterparts would accompany the trainees at all times. To monitor and record the tasks completed in the workplace, lists were prepared and completed by counterparts. (see Appendix M-1 Workplace Task Distribution for Industry Attachment)

During this component of the course, the counterparts had the following responsibilities in relation to the trainees:

- ✓ Inform workshop supervisors of competency tasks which trainees would be trained in and to explain the aims of this part of the project;
- ✓ Regularly visit trainees in the workplace to monitor their progress and to discuss findings with workshop supervisors;
- ✓ Complete Industry Attachment reports on all trainees; and
- ✓ Report any difficulties to Industry contact, JPT or TVTO manager as necessary.

The trainees had the following responsibilities:

- ✓ Attend their designated workplace between 8.00am and 3.30pm each day for the 15 day period;
- ✓ Participate in and/or observe tasks related to the units of competence covered by the second pilot training course;
- ✓ Inform workshop supervisor and assigned counterpart of any tardiness or absences during that period; and
- ✓ Follow any reasonable instruction from workshop personnel in relation to the normal performance of their duties.

Throughout the attachment, trainees were exposed to tasks related to the units of competence covered in the second pilot training course.

#### Component 4: Curriculum Development

The process of curriculum development adopted for the second pilot training course was a systematic one involving major steps which are documented in detail in the CBT Manual (Appendix N). The following components C4-1 to C4.6 are the process described in the Manual and JPT followed this process to implement the Project:

##### **C4-1 Produce Course Learning and Assessment Guide**

A Learning and Assessment Guide was produced for the second pilot training course which covered the following aspects:

- ✓ Who their trainers are likely to be and how they can be contacted for assistance and guidance;
- ✓ The number of units they can be expected to complete;
- ✓ The nominal duration of the course and the intended course/unit schedule;
- ✓ Attendance and assessment requirements;

- ✓ Recommended training resources; and
- ✓ Expectations related to industry attachments and course-relevant excursions.

In the case of the second pilot training course, many of these details were being tested throughout the period of the course. However, a template was developed during the Train the Trainer phase which can be found in the CBT Manual.

#### **C4-2 Study Units of Competence and Interpret All Training Information**

During the Train the Trainer phase, CPs spent enough time interpreting all sections of a unit of competence in collaboration with the JPT. CP and JPT had detailed discussions, analysis and interpretation using a sample Level 2 unit of competence – Inspect and Service Cooling Systems. As JPT provided specific examples, CPs were able to improve their comprehension of the language and style the units have been written in.

CPs reported that this week-long exercise gave them the best understanding of CBT principles as it considered the theoretical information they had encountered since the start of the Project.

#### **C4-3 Identify Training Tasks from the Unit of Competence Elements**

JPT had discussion with major industry representatives (through the IRG) on this task analysis. The discussion indicated that most enterprises would be reluctant to spend much in the way of resources to conduct job and task analyses. The Project applied an alternative strategy for the second pilot training course.

#### **C4-4 Consult with Industry to confirm relevance and accuracy of tasks**

The task validation process adopted by the counterparts involved firstly visiting three local reputable automotive workshops. The three workshops visited in the Azadi Kosh area were MEHR, KOSH and CHARMAHALI BENZ.

Provided with a list of the selected tasks, CPs discussed with workshop supervisors the choice of tasks, frequency of task performance, importance to the course level (Level 2) and how well they reflected current practice. Comments from workshop operators and supervisors were noted and as a result some tasks were added, some discarded and others modified.

A further validation took place with members of the IRG. After the main IRG meeting held on 5th July, 2010, a follow up meeting was held at the Saipa Yadak training facility on 7th July 2010 to discuss details of the Industry Attachment. Revised copies of the tasks were distributed and again some minor adjustments were made.

#### **C4-5 Develop Training Resources**

Training resources for the second pilot training course were developed through a four sub-step process described below.

##### *i Collect Technical Information*

##### *ii. Research Available Training Resources*

##### *iii. Produce Training Workbooks*

CPs analyzed several Australian workbooks, identified the best features of each and combined these into a workbook containing the following sections.

*Contents Page*

*Introduction: Unit Description, Assessment Criteria ( what the trainee must do to be competent), Main References and Key Words*

*Safety Considerations**Main Section:*

- Information such as component identification, system and component operation, servicing procedures, “safety boxes”, practical activities
- Information summaries
- Review questions/ tasks
- Checkpoints where trainees report to the instructor before continuing

*iv. Produce Other Training Resources*

Other items developed to supplement delivery of training for units of competence included:

- ✓ Handouts for distribution to trainees;
- ✓ Practical task sheets and checklists to provide additional work instructions or to document task progress;
- ✓ 3rd Party verification forms which record/endorse the repetition of tasks in the workplace; and
- ✓ Suitable facilities to accommodate all necessary resources which are vital to fair and equitable task performance and assessment.

**C4-6 Construct Training Plan**

CPs developed Training Plans which covered the following aspects:

<b>Planning</b>	<b>Delivery</b>
Session structure including session plan	Choice of motivating strategies
Choice of assessment tools	Use of questioning techniques
Choice of training resources	Allowing for individual trainee differences
Monitoring attendance	Use of voice and presentation style

**Component 5: Assessment****C5-1 Development of an Assessment Plan**

The assessment plan developed for the second pilot training course matched various assessment methods against either performance criteria of a particular element or describes what methods are to be used for each UOC for an entire course. Assessment for each unit was planned using an assessment matrix. (See Appendix M-2 Assessment Matrix for Unit of Competence and Appendix M-3 Assessment Guide) The most common assessment methods used were written responses – usually in the form of multiple choice tests, practical tasks and workplace verification.

**C5-2 Assessment Portfolio**

Each trainee built an assessment portfolio as he progressed through second pilot training course. This was maintained by the Counterparts and consisted of various forms of evidence produced in relation to each UOC. Typically the portfolio contained:

- ✓ Original written tests that have been marked;
- ✓ Practical task assessment checklists;
- ✓ Workplace task verification; and
- ✓ Written comments from trainers or workplace supervisors.

The summary of the assessment portfolio items/checklist was included in each workbook. (Appendix M-4 Assessment Summary)

### **C5-3 Assessment Tools**

The assessment tools developed and contained in the workbooks included:

- ✓ Assessment summaries indicating the steps required to achieve competency;
- ✓ Review questions;
- ✓ Practical task checklists; and
- ✓ Assignments.

Other tools developed but kept separately to the workbooks include:

- ✓ Assessment matrices;
- ✓ Written multiple choice tests;
- ✓ Workplace task verification forms; and
- ✓ Checklists for practical tasks.

## **Component 6: Recruitment of Trainees**

### **C6-1 Recruitment Plan**

ITC and JPT agreed that recruitment of trainees for the second pilot training course was the responsibility of ITC. Deputy of Training at ITC, Mr Bojalvand, acted as local coordinator for implementation of the second pilot training course and took responsibility for the recruitment of trainees from the Karaj area. It was initially planned to advertise the second pilot training course by means of a flyer to be distributed locally in the Karaj area and on the ITC web site. However, the Training and Technical department of ITC already had a list of applicants for similar courses. In order to make-up for weeks lost in the project office relocation to Karaj, applicants for the second pilot training course were drawn from this list.

### **C6-2 Selection Criteria**

Applicants for the second pilot training course were selected according to the following criteria:

- ✓ Registration with ITC office must be completed
- ✓ Diploma level education (minimum CICLE)
- ✓ Aged between 17–30 years (with appropriate certification)
- ✓ Pass a literacy and numeracy pre-test
- ✓ Attend an interview
- ✓ Good physical condition

### **C6-3 Selection Process**

Applicants attended the pre-test on 14<sup>th</sup> July 2010. Following the pre-test, applicants were asked to attend an interview on 17<sup>th</sup> July 2010.

The Pre-test used was a standard “Maths and Intelligence” test used in the past as a reliable screening instrument. The test was conducted at the ITC and consisted of 20 multiple choice questions. Of the 28 applicants who sat the test, only 17 scored more than 50% (pass mark). However, the counterparts who conducted the selection process chose to interview all applicants. It was considered that the pre-test alone would not provide sufficient indication of a trainee’s suitability. By combining the test results with interview outcomes, 12 trainees were finally selected with a further 2 on a waiting list.



## Component 7 Course Delivery

### **C7-1 Timetabling**

The second pilot training course was originally scheduled as an 8 week course incorporating a 3 week Industry Attachment. After several unforeseen delays mainly due to relocation of the Project from TVTO to ITC in Karaj, the final timetable of the course allowed only 6 weeks for the course proper and 3 weeks for Industry Attachment. Shortening the course also meant a reduction in the units of competence delivered down to 10 units. No reduction was made to the length of the Industry Attachment component as it was considered one of the most important aspects of the second pilot training course.

### **C7-2 Teaching Methodology**

It was suggested that the counterpart (trainers) lead and direct classroom and workshop activities to maximize trainees' involvement with learning materials; to use questioning techniques to assess trainees understanding of tasks, procedures and concepts.

In reviewing sessions, the counterparts found that in some cases excessive theory was being taught, depth of knowledge required to perform tasks was too great and that practical assessment of tasks could have been carried out in the course of workshop activities rather than as a separate exercise.

### **C7-3 Facilities and Resources**

The counterparts and trainees had access to the most up-to-date automotive facilities in the ITC. Trainees used a variety of late-model vehicles, a large selection of tools and specialized equipment – some of which would not have been available at many TVTCs.

This hardware was supported by many other learning materials. The workbooks developed by Counterparts prior to the second pilot training course served as valuable resources that trainees could keep. The management of delivery was addressed through normal attendance record-keeping practice together with a complete record of all course-related information including:

- ✓ All knowledge tests
- ✓ Practical Task Record Sheets
- ✓ Workplace Practical Tasks
- ✓ Assessment Summary
- ✓ Trainee Agreement
- ✓ Pre-test
- ✓ Mega Motor Ind. Attach. Program

## Component 8: Monitoring and Evaluation

### **C8-1 Development of the Framework**

The M&E framework used in the first pilot training course was adapted for use in the second pilot training course. Table 3.21 outlines the activities of the four types of M&E used for the second pilot training course.

**Table 3.21 Outline of Each Type of Monitoring and Evaluation**

Type	Timing	Objective
On-going Course Monitoring	Daily	<ul style="list-style-type: none"> <li>• Identification of issues in daily basis and actions for on-going modification.</li> <li>• Collection data for course evaluation</li> </ul>
Industry Attachment Monitoring	During the industry attachment	<ul style="list-style-type: none"> <li>• Identification of issues on a daily basis and actions for on-going modification of the industry attachment program and the latter half of the training course.</li> <li>• Collection of data for course evaluation</li> </ul>
Course Completion Monitoring	On the completion of the course	<ul style="list-style-type: none"> <li>• Identification of issues and strengths in the course delivery and actions for improvement of the future courses.</li> <li>• Collection of data for course evaluation</li> </ul>
Follow up Monitoring	Two months after the course completion	<ul style="list-style-type: none"> <li>• Evaluation of the course by analyzing the outcomes and identification of actions for improvement of a course in the future.</li> </ul>

Source: JICA Project Team

The major changes from the first pilot training course are:

- ✓ On-Going Course Monitoring was changed from internal monitoring (by trainers) to external monitoring (by JPT);
- ✓ Mid-Term Course Monitoring was eliminated;
- ✓ Industry Attachment Monitoring was added as industry attachment program was added to the second pilot training course; and
- ✓ Questionnaire of Course Completion Monitoring was changed to employ scales ranging from 1–5 instead of 0 to 20.

### **C8-2 Development of Tools and Training on usage of tools developed**

JPT organized a workshop on 19<sup>th</sup> and 20<sup>th</sup> of June with CPs to develop tools and to brief them on the M&E process to be used for the second pilot training course. The workshop topics were:

- ✓ Review of the result of M&E in the first pilot training course;
- ✓ Confirmation of the M&E activities in the second pilot training course;
- ✓ Review and Revision of existing M&E tools;
- ✓ Development of new M&E tools; and
- ✓ Reconfirmation of the main objective of M&E - to improve the course, but not assess trainer performance.

There were also some minor changes with the quality indicators. Some changes were:

- ✓ Two sub-components of quality indicator – “Training Result” and “Performance in the Workplace” were merged into one sub-component – “Training Outcomes”; and
- ✓ “Safety” indicator was transferred from “Training Support Environment” to “Training Delivery” sub-component because safety relates not only to the environment but to various aspects of training delivery.

Table 3.22 shows the list of new quality indicators for the second pilot training course.

**Table 3.22 List of Quality Indicators**

<b>Sub-Component</b>	<b>Quality Indicator</b>
Training Delivery	<ul style="list-style-type: none"> <li>• Course Content</li> <li>• Trainee Assessment</li> <li>• Learning Resources</li> <li>• Training Equipment</li> <li>• Safety</li> <li>• Clear expectations</li> </ul>
Trainer	<ul style="list-style-type: none"> <li>• Instructional Skills</li> <li>• Technical knowledge</li> <li>• Course Management Skills Interpersonal Skills</li> </ul>
Training Support Environment	<ul style="list-style-type: none"> <li>• Training Rooms</li> <li>• Training Center's Facilities Administration and support</li> </ul>
Trainee's Learning Experience	<ul style="list-style-type: none"> <li>• Achievement</li> <li>• Motivation</li> <li>• Overall Satisfaction</li> </ul>
Training Outcomes	<ul style="list-style-type: none"> <li>• Enrolment Rate</li> <li>• Attendance Rate</li> <li>• UOC completion Rate</li> <li>• Dropout Rate</li> <li>• Employment Rate</li> <li>• Performance in Workplace</li> </ul>

Source: JICA Project Team

An On-going Course Monitoring Sheet, a Trainee On-going Daily Feedback Questionnaire, and a Trainee On-going UOC Feedback Questionnaire as well as tools for Industry Attachment Monitoring were newly developed. The rest of the tools were revised.

Table 3.23 shows the M&E tools for the second pilot training course.

**Table 3.23 List of Monitoring and Evaluation Tools Used for the Second Pilot Training Course**

<b>Type of M&amp;E</b>	<b>Tools developed</b>
On-going Course Monitoring	<ul style="list-style-type: none"> <li>• On-going Course Monitoring Sheet (developed)</li> <li>• Trainee On-going Daily Feedback Questionnaire (developed)</li> <li>• Trainee On-going UOC Feedback Questionnaire (developed)</li> </ul>
Industry Attachment Monitoring	<ul style="list-style-type: none"> <li>• Industry Attachment Task Completion Check Sheet (developed)</li> <li>• Industry Attachment On-going Monitoring Sheet (developed)</li> <li>• Industry Attachment Supervisor Feedback Questionnaire (developed)</li> <li>• Industry Attachment Trainee Feedback Questionnaire (developed)</li> </ul>
Course Completion Monitoring	<ul style="list-style-type: none"> <li>• Course Completion Trainee Feedback Questionnaire (revised)</li> <li>• Course Completion Trainee Focus Group Interview Sheet (developed)</li> </ul>
Follow-Up Monitoring	<ul style="list-style-type: none"> <li>• Graduate Follow Up Survey Interview Sheet (revised)</li> <li>• Employer Follow Up Survey Interview Sheet (revised)</li> </ul>

Source: JICA Project Team

### **C8-3 Implementation of Monitoring and Evaluation**

Four types of M&E activities were carried out according to a prescribed schedule. The four types of activities and the summary of their results are as follows:

### On-going Course Monitoring

JPT conducted an On-Going Course Monitoring on a daily basis by collecting data from the course documents, the trainees and the trainers through administering questionnaires and conducting interviews. The result was provided to the course deliverers in order to enable on-going modification.

One example of an action taken in response to trainee feedback was that trainers decided to prioritize tasks within UOCs so that training in the UOCs could be completed on time. (Trainee feedback had indicated that units were not being completed on time). This indicates that M&E activity contributed to improving course delivery.

It was also found that one of the trainers used his own check sheet form to record the result of trainee assessments. The assessment information was not transferred to the prepared assessment record form. The inadequate documentation process was corrected by requiring the trainer to use a standard form.

### Industry Attachment Monitoring

It was expected that while undertaking the industry attachment the trainees would practice as many tasks<sup>14</sup> as possible that were incorporated in the UOCs prescribed in the course.

The industry attachment monitoring focused on the progress of these tasks completed by the trainees during the program. The host companies' supervisors checked if the tasks were practiced on a daily basis by each trainee using an industry attachment task completion check sheet.

In addition, trainees' feedback data on their achievement and satisfaction was collected through administering a questionnaire. The CPs supervised the trainees everyday at the industries' workshops, and the JPT occasionally visited to support the CPs.

The CPs discovered in the first week that the trainees were not often undertaking variety of tasks. This information was communicated to the industry supervisors took remedy the situation by providing the trainees with workshop experiences they had not encountered before.

It was also found that the trainees practiced not only the tasks they had undertaken in the course, but also the tasks they had not completed.

The average rate<sup>15</sup> of trainees undertaking tasks prescribed for each UOC is summarized in Table 3.24. In relation to relevant work undertaken in the industry attachment, data collected indicates although it was not possible for all trainees to get some hands-on experience in the tasks prescribed for all course UOCs, most were able to get some on-the-job experience.

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<sup>14</sup> Tasks are broken down of UOCs. Trainee's assessment in the pilot course was done by this level of tasks. For example, "Service Petrol Fuel Systems" was broken down into the 8 tasks.

<sup>15</sup> The average rate of trainees undertaking tasks = sum total of all tasks trainees practiced / (the total number of tasks) × (the number of trainees)

**Table 3.24 Average Task Completion Rate for Each UOC**

<b>Title of UOC (no. of tasks included)</b>	<b>Average Rate of trainees undertaking tasks</b>
<b>UOC for Block 1 (Before the Industry Attachment)</b>	
1. Apply Safe Work Practices (5 tasks)	72%
2. Workplace Tools and Equipment (4 tasks)	69%
3. Inspect and Service Engines (11 tasks)	78%
4. Service Petrol Fuel Systems (8 tasks)	45%
5. Read in the Workplace (5 tasks)	
*50% was delivered before the industry attachment	55%
<b>UOC for Block 2 (After the Industry Attachment)</b>	
6. Inspect and Service Braking Systems (11 tasks)	45%
7. Inspect and Service Transmissions (Automatic) (3 tasks)	58%
8. Inspect and Service Steering Systems (5 tasks)	38%
9. Test, Service and Charge Batteries (4 tasks)	25%
10. Repairs to Single Electrical Circuits (6 tasks)	10%

Source: JICA Project Team

Based on the above results, CPs rescheduled the second half of the course to provide the trainees with a greater degree of hands-on experience. Immediately after the completion of the industry attachment program, a feedback questionnaire survey was given out to collect feedback from the trainees in relation to their satisfaction with their industry attachment. The feedback data from the trainees showed their overall satisfaction with the industry attachment program<sup>16</sup>. Hence the program can be considered as successful.

### Course Completion Monitoring

Course Completion Monitoring was carried out immediately after the completion of the course. The JPT collected feedback data from the trainees through administering questionnaires and conducting interviews.

In addition, data was collected though conducting a check of course documentation. An evaluation meeting was held with the CPs to analyze the collected data. The following is a summary of the course results:

- ✓ Seven trainees completed all ten UOCs provided, while two trainees completed only five UOCs. The rest of three trainees completed from six to nine UOCs;

Table 3.25 provides information relating to the rate of completion of UOCs prescribed for the second pilot training course

**Table 3.25 Number of Trainees Completed for Each UOC**

<b>UOC</b>	<b>No. of trainees completed</b>
1. Apply Safe Work Practices	12
2. Use and maintain workplace tooling and equipment	12
3. Inspect and Service Engines	9
4. Service Petrol Fuel Systems	7
5. Inspect and Service Braking Systems	10
6. Inspect and Service Transmissions (Automatic)	9
7. Inspect and Service Steering Systems	11
8. Test, service and charge batteries	11
9. Carry out repairs to single electrical circuits	11
10. Read in the Workplace	11

Source: JICA Project Team

<sup>16</sup> They rated the overall satisfaction 3.5 points (more than 4 = Good) in 1–4 in scales (1 = Strongly Disagree, 2 = Disagree, 3 = Agree, 4 = Strongly Agree). This scale was used for the Industry Attachment Monitoring.

- ✓ The attendance rate<sup>17</sup> was 93%;
- ✓ The drop-out rate<sup>18</sup> was 0; and
- ✓ The trainees were exceedingly satisfied with the overall course<sup>19</sup>

There was concern about the fact that some trainees could not successfully complete all UOCs. The main reason identified through discussions with the trainers was that the allocated delivery time was not sufficient for the slow learners and therefore perhaps improving the training environment could be a solution. Efforts could be made to improve the training by providing more comfortable facilities such as rooms, PCs, a library, time after the session, and etc. to encourage trainees' self study activities. This view was supported by comments from three trainees indicating that "If ITC did not close right after the session, I wanted to stay and study myself."

The Course Completion Monitoring provided effective quantitative and qualitative data. By analyzing collected data from a wide range of viewpoints, it identified issues related to all stages of the training and can provide guidance and improve future training courses

#### Follow-up Monitoring

A Follow-up Monitoring is expected to be conducted after some time has passed after course completion by the CPs to come up with the final evaluative conclusion of the course by obtaining the quality indicators of "Course Outcomes" sub-component.

### **3.6 CBT Working Committee**

In accordance with the discussions in the Joint Coordinating Committee (JCC) meeting held on February 2010, JPT proposed to establish the CBT working committee at TVTO in Tehran, but it was established at ITC due the transfer of the project to ITC in Karaj.

Its functions were downsized from the original idea and determined as follows: The intention of setting up a CBT Working Committee was to enable lessons learned from the Project to be applied sustainably to the TVT sector in Iran.

### **3.7 Development of the Model and the Manual**

The central objective of the JICA Project has been to induct the CPs into the CBT approach and methodology, and work cooperatively with them to implement the two pilot training courses.

In order to enable them and other TVTO staff who have participated in CBT workshops, the JICA Project Team have developed and produced a Manual to support the implementation of the CBT.

The manual has been developed based on the project's experiences of modifying the CBT approach throughout the pilot training courses as well as the lessons learned. The first version based on the Pilot Training Course 1 was submitted to TVTO asking for comments and corrections in March 2010. The draft was updated and revised adding the lessons out of Pilot Training Course 2 in September 2010. A seminar on Manual presentation was held in October 2010 for the publication and finalization of the manual.

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<sup>17</sup> Attendance rate = (sum total of no. of attending days) / (no. of trainees x training days)

<sup>18</sup> Drop-out rate = (number of trainees dropped out) / (number of trainees enrolled)

<sup>19</sup> Average rate of overall satisfaction was 4.7 points in 1-5 scales (1: Strongly Disagree, 2: Disagree, 3: Neutral, 4: Agree, 5: Strongly Agree). This scale was used for the Course Completion Monitoring.

The manual comprises the following three parts:

- ✓ Process for Defining Job-relevant Competency Standards (Part1);
- ✓ Process for Developing Curriculum to Support CBT Delivery (Part2); and
- ✓ Process for Developing appropriate Monitoring and Evaluation Framework (Part 3).

The manual is drafted considering the best convenience of the readers: each part contains an explanatory note, process steps and appendices.

### 3.8 Lessons Learnt

There have been a number of lessons learned through conducting activities in the Project since its commencement. The following lessons were learned through Project implementation:

- ✓ The participants of the CBT induction workshop found it difficult to come to terms with some of the basic precepts of a CBT approach, as they had not been exposed to CBT concepts and methodology before. The fact that CPs significantly improved their understanding of the CBT approach through participating in the conduct of the pilot courses indicates that participatory workshop helped people understand CBT more at the beginning stage. The following are the terms they had difficulty understanding initially:
  - The notion that in a CBT system competency standards are defined by industries rather than by training provider organizations;
  - The realization that the prime responsibility of the training providers is to develop an appropriate curriculum and training resources to support training, and use appropriate teaching methods to deliver it;
  - The notion that progressive assessment of trainees is primarily conducted by trainers and not by an external agency such as an “Examinations Department”; and,
  - The necessity for a process of course monitoring and evaluation to be undertaken on an ongoing basis to ensure that training achieves prescribed industry standards and ensures continuous improvement.
- ✓ The Project found that there were some differences in opinion in relation to defining the competency standards due to the difference of nature of business between large and small scale companies and therefore training courses should be designed to match the industrial training needs of different company size. In this context, IRG and/or Interviewees for need survey should consist of representatives, with enough technical backgrounds, of various industrial groups by company sizes. However, it was extremely difficult to identify good resource persons from small scale companies and therefore the Project used the following means: 1) It found resource persons representing small and medium scale companies from unions in relevant industrial areas and 2) it requested large and influential companies to make arrangements with personnel from a number of companies that are affiliated or in some other way connected with smaller companies and agencies.
- ✓ A regular screening of IRG members was necessary to find appropriate resource persons, as there are not many personnel who can contribute to develop training structures from a nation-wide view point.
- ✓ The Project successfully established good relations with IRG members and their companies, by communicating with them frequently and decently, through the needs survey and follow-up monitoring. These relationships helped the Project to organize and operate IRG effectively and have industry attachments.

- ✓ Australian nominal hours allocated to UOCs were insufficient for the Iranian context, given the differences in Persian trainees' learning habits and characteristics. More trials are needed to determine an appropriate nominal hours when developing training package.
- ✓ The Project modified the timetable of the pilot training course frequently, due to unforeseen circumstances such short notice regarding public holidays, availability of instructors and changes in management. Course timetabling needs to be flexible enough in Iran.
- ✓ The Project translated the workbooks developed by the Australia Training Provider and customized them for its fast track strategy, but some workbooks were developed newly. More time (approx. 10days) was needed to develop new workbooks.
- ✓ The inclusion of the Industry Attachment component added a valuable dimension to the delivery of the pilot training course because 1) the trainees gained full appreciation of the tasks being taught in the course, 2) the trainees learned good work habits from experienced tradesmen and gained an understanding of the work culture in the Automotive Service industry, and 3) it contributed to the success of the course through the reinforcement of task skills.

However, some companies made trainers keep away when they monitored the trainees due to security protection. Thus it is necessary to conduct monitoring with great consideration not to disturb their businesses.

- ✓ The trainers were rather focused on teaching the course content but not assessing the trainees' competency.
- ✓ Although documentation skills, mainly for on-going monitoring and assessment, is a key skill of CBT, CP trainers could not do it properly and delayed its submission often due to lack of experience;.
- ✓ Follow-up monitoring had limitations in judging if graduates' performances at their workplaces were correlated with the training they received and in assessing their performance on each UOC due to the time limitations of monitoring. Therefore it is necessary to accumulate a larger amount of survey data and to upgrade the skill of the interview.
- ✓ Evaluation meeting held after course completion provided the opportunity of information exchange among trainers and contributed to upgrading the trainer's knowledge and skill. In addition, the trainers provided a lot of additional feedback with wide viewpoints and interpretations of data and contributed toward the effective analysis at the evaluation analysis stage and therefore it was recommended to involve them for evaluation analysis.



## 4. Project Achievement

### 4.1 Introduction

Technology transfer is a key of technical cooperation projects, both in terms of smooth implementation of the project and sustainability after the completion of the project. This chapter provides an overview of the technology transfer achieved by the project. Finally, the evaluation results by the Terminal Evaluation Team are introduced.

### 4.2 Technology Transfer to Counterparts

Through implementing the Project together with the JPT, the CPs experienced and learned the following points:

#### Needs Survey to Define Units of Competence

- ✓ How to understand the overall structure of the Australian Training Package and the contents of UOC;
- ✓ How to analyze the industrial structure;
- ✓ How to establish cooperative relations with industry;
- ✓ How to determine target training areas and levels;
- ✓ How to identify a similar certificate from the Australian Training Package;
- ✓ How to select candidate UOCs from inventory in Australian Training Package;
- ✓ How to prepare a questionnaire sheet, train interviewers, identify appropriate interviewees, conduct interviews and analyze interview results and prioritize UOCs;
- ✓ How to let technical experts prioritize selected UOCs through meetings, questionnaires and interviews;
- ✓ How to customize UOCs based on comments obtained from interviews and meetings; and
- ✓ How to finalize the design of training course.

#### Operation of IRG

- ✓ How to design the structure of IRG members with a good mix;
- ✓ How to identify appropriate candidates of IRG members with a sufficient level of experience as technical experts;
- ✓ How to obtain approval from respective companies for their technical experts to be IRG members by explaining the benefits reaped by the industry sectors;
- ✓ How to call, organize and manage IRG meetings, prepare handouts and appropriate agendas and take meeting minutes;
- ✓ How to make IRG active and sustainable with visible progress and achievement; and
- ✓ How to request companies of IRG members for arrangement of meeting, interview and industrial attachment.

Note that the IRG members selected from the industry also learnt the following:

- ✓ How the CBT system make benefit for industry by sharing responsibilities for technical human resource development;
- ✓ How to cooperate TVTO to introduce the CBT system;
- ✓ How to understand the overall structure of the Australian Training Package and the contents of the UOC;
- ✓ How to determine target training areas and levels;
- ✓ How to identify a similar certificate from the Australian Training Package;

- ✓ How to select candidate UOCs from inventories in the Australian Training Package;
- ✓ How to prioritize selected UOCs through meetings, questionnaires and interviews; and
- ✓ How to finalize the design of the training course.

### Delivering the Course

- ✓ How to analyze UOCs to extract meaningful information with which to develop curriculum materials by breaking down Elements and Performance Criteria into sub-tasks;
- ✓ How to confirm tasks with industries by forming an informal local industry reference group;
- ✓ How to develop a course structure which integrates an Industry Attachment component to consolidate task learning and promote the achievement of competency;
- ✓ How to develop curriculum materials and resources through more effectively adapting Australian workbooks;
- ✓ How to develop assessment tools including assessment matrices, practical task record cards, workplace practical tasks and multiple-choice tests;
- ✓ How to research resources on the Internet; and
- ✓ How to prepare a pre-test format for gauging the existing knowledge and skill levels of the trainees.

### Monitoring and Evaluation

- ✓ Gained basic knowledge and skills for effective monitoring and evaluation under the CBT environment;
- ✓ How to plan M&E including scheduling and development of M&E tools;
- ✓ How to record monitoring data and sort them out for On-going Monitoring.;
- ✓ How to collect data through questionnaires and interviews;
- ✓ How to collect data by visiting graduates' workplaces for Follow-up Monitoring;
- ✓ How to analyze collected data for On-going Monitoring and Course Completion Monitoring. They learned how to organize and tally data and analyze them as well as how to utilize them for on-going modification of the course delivery; and
- ✓ How to monitor Industry Attachment Program.

## **4.3 Results of the Evaluation by the Terminal Evaluation Team**

The next table provides the results of the project evaluation conducted by the Terminal Evaluation Team according to the following five criteria.

**Table 4.1 Evaluation Results by Terminal Evaluation Team, 2010**

<b>Evaluation Result</b>	<b>Description</b>
Relevance: High	The Japanese side confirmed to continue its assistance for projects that will contribute to increasing employment opportunities in Iran. Still, however, according to TVTO, there is room for TVTO to be involved for the further TVT reforms in the future.
Effectiveness: High to some extent	Despite the fact the Project faced many challenges such as the frequent change in TVTO management and changes in the Project site, the JICA Project Team accommodated the changes in a flexible manner and implemented the Project per the planned schedule for the most part. The results of the Project prove that the project purpose is going to be achieved by the end of the Project.
Efficiency: Average	The expected outputs are going to be delivered before the end of the Project despite the fact that the ratio between the inputs and outputs of the Project changed when compared with the beginning of the Project and the time of the Terminal Evaluation. The following factors hindered the efforts to improve the productivity and appropriateness of the Project: <ul style="list-style-type: none"> <li>• The number of counterpart personnel available for the Project was reduced.</li> <li>• Project management structure was changed a few times.</li> <li>• The initial project site was not appropriate.</li> </ul>
Impact: Expected to have a positive impact, while no negative impact is expected.	In the 3 to 5 years after the end of the Project, the national vocational qualification in labor force is expected to increase, which is the overall goal of the Project. Examined training management cycles, training management plans and manuals on CBT that are under production by the Project shall be made available to all concerned organizations/ industries/ persons in the TVT sector in Iran in order to meet the required needs to achieve the overall goal in a timely manner. TVTO is expected to secure the following conditions in order to increase the probability of the achievement of the overall goal. The overall goal is achieved without the direct assistance of the Japanese side: <ul style="list-style-type: none"> <li>• The ongoing reform of the TVT sector in Iran is completed in a timely manner.</li> <li>• The current national vocational qualification/standards are modified accordingly, if CBT approach is approved as the national training approach.</li> <li>• More instructors in the TVT sector in Iran are appropriately trained on CBT application</li> <li>• The IRG model established in the Project is extended to other industries, as needed.</li> </ul>
Sustainability:	Some measure in terms of organizational/policy and technical aspects of the Iranian side have to be taken from now on to increase the sustainability of the Project. Until project termination, both sides provide the ground for the dissemination of the CBT approach training through the 3 instructors trained in the Project.

(Quoted from “Minutes of Meeting between the Japanese Terminal Evaluation Team and the Research and Programming Deputy, Technical and Vocational Training Organization on the Japanese Technical Cooperation for the Project for Strengthening Technical and Vocational Training Management Skills in Technical and Vocational Training Organization”, 2010 (Appendix G).

In general, the results of the Evaluation Team’s assessment were positive and it was noted that TVTO would achieve the overall goal of the project (The CBT approach becomes a basis of the training structure of TVTO) as the TVTO is expected to have taken the necessary initiatives to disseminate the model developed by the Project.

#### 4.4 Progress After the Terminal Evaluation

Based on the TVTO training improvement plan in Chapter 5 of this report developed by JPT, TVTO (ITC) have started implementing the tasks recommended to start in year 2011. That is, TVTO (ITC) will develop the curriculum of the remaining 11 UOC to complete the Automotive Certificate II level. TVTO (ITC) divided the whole process into the following four phases:

**Table 4.2 Four Phases to Develop Curriculum of Automotive Certificate II**

Phase	Duration	Tasks
1	2 days	Conduct intensive CBT workshop for 20 new trainers selected from provincial TVTCs. Two trainers will be assigned to each Unit of Competency to be developed and the CP will train them on how to develop curriculum materials in Farsi to be used in the delivery of the second part of the Automotive Maintenance course.
2	approx. 6 weeks	The trainers return to the provincial TVTCs and continue to develop curriculum materials, including trainee workbooks and assessment tools. The trainers will organize the local IRG to customize their curriculum materials, as their needs arise. During this phase CPs will maintain regular contact with their trainers via email / telephone and arrange to meet with them at the ITC at least once a week.
3	2 weeks	All trainers will return to ITC to finalize development and production of learning materials. TVTO will request central IRG, established already by the Project, to validate the training material developed by the trainers from each Province. This phase will also include the planning of Part 2 of the Automotive Maintenance course.
4	12-14 weeks	Part 2 of the Automotive Maintenance course will be delivered to trainees who participated in the JICA Pilot course 2 so that they may complete a qualification equivalent to the Certificate II in Vehicle Servicing from the Australian Training Package. Additionally, other new trainees will be selected to participate so as to maximize the CBT development and delivery experience for all counterparts.

*Source: JICA Project Team summarized the plan of ITC*

ITC requested JPT to support Phase 1 and to support the workshop implementation on the 15<sup>th</sup> and 16<sup>th</sup> of November for 13 trainers.

## 5. Recommendations for the Way Forward

### 5.1 Introduction

The main mission of the Project for JPT was to work in close collaboration with TVTO counterparts to trial the processes of developing, implementing and evaluating a CBT approach in an Iranian TVT setting, as this project was a technical cooperation project.

As described in Chapter 3, the Project customized competency standards and curriculum from the Australian Vocational Education and Training (VET) system in the Automotive Service & Repair sector to conduct two pilot courses. Evaluation of the pilot courses by trainers, trainees and industry concluded that this approach was feasible to apply in Iran and can have very acceptable outcomes. It would be important for TVTO how to use the experience gained from the Project to expand the CBT system throughout the TVT sector.

This Chapter makes recommendations which are intended to guide TVTO in making full use of the outcomes from the Project to continue a TVT reform program using the CBT approach as the main means of reform.

### 5.2 TVT Reform in Iran

Industry (a generic title for all occupations sectors which provide goods and services and employ people) is the principal customer of the TVT sector. The TVT provider is expected to deliver relevant training courses which address current (and future) training needs in all industry sectors. Industry is not particularly concerned with who provides the training courses but are generally very concerned that the training is well matched to their training needs. Therefore it is necessary to provide standards which are developed through a demand-driven approach, are relevant across the country and can rationalize whole technical vocational training. The introduction of the CBT approach is considered as the best approach to achieve this. This section provides the necessary requirements to introduce CBT approach in Iran with the implementation plan described in section 5.3.

#### 5.2.1 Fast Track Approach to Introduce Standard from Other Countries

The general process of developing competency standards comprises the following 5 processes:

- Process 1: Research
- Process 2: Analysis
- Process 3: Development
- Process 4: Validation
- Process 5: Evaluation

Conducting all five processes for determining competency standards takes a vast amount of time and budget. However, adopting a fast-track strategy involving the use of competency standards from other countries and customizing them for Iran, can decrease initial cost and time to implement a CBT system in Iran.

The benefit from the above-mentioned strategy can be summarized as follows:

- ✓ Time and budget can be significantly saved for developing standards. It will take a couple of years for training needs analysis of one industrial area if four processes of training needs analysis are conducted from the beginning. In addition, as there are no such training needs specialists available in Iran and so international specialists will have to be recruited, a substantial amount of cost will be required;

- ✓ Various documents including curriculum, teaching materials and assessment documents can be used from Australian training institutes, which will significantly help the TVTO save time and budget; and
- ✓ Since many countries are using a CBT system now, TVTO can refer to various materials and documents from those countries and customize them to meet Iranian industrial needs. The information could be available through the Internet.

In order to trial this strategy, the Project used competency standards from the Australian automotive service and repair sector. The decision was made on the assumption that core training needs in this technical sector are similar, as they are in this sector across the world. The further assumption was that they could be used effectively as long as they were customized to specifically suit industry training needs in Iran.

The Project selected 21 units of competency, most of which are fundamental units in Australia, as a proposed skill set for the 2nd pilot training course and requested the IRG members to prioritize them. The IRG members approved these 21 UOCs as being highly relevant for training employees to perform job tasks as an automotive mechanic in Iran. This indicates that training needs are very similar in the two countries and that the “fast-track” strategy applied by the Project is effective. Therefore, it would be recommended for TVTO to apply this fast-track strategy to introduce CBT into TVTO quickly and efficiently.

### **5.2.2 Progressive Development and Implementation**

It is quite difficult to introduce the CBT system into all TVTC at once as the number of target TVTC and industry is large. Therefore, it is recommended to introduce it progressively to utilize limited human resource effectively.

First of all, the Project consulting team recommends dividing up the entire process to implement the certificates of each industry area into three stages, namely, the development stage, the pilot stage and the full implementation stage. After implementing at ITC in the development stage, it will also be implemented at several selected TVTCs for trial. After these, all TVTCs would implement it as full implementation stage.

It is also recommended to start from the lower certificate, or certificate II, to higher levels such as certificate III, IV, and V, so that the trainers will be accustomed to the new approach.

It is also recommended to complete the Automotive Service & Repair area first as this area has been developed already and then develop two or three higher priority areas before developing whole other areas. This enables TVTO to decrease whole implementation period and this coincidental development is capable, as necessary human resources are different for each training area.

The next figure describes these stages. Necessary period for each development stage and pilot stages are assumed as two years.

Trade	Certificate	Year													
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Auto-mechanic	II	Develop		Pilot		Full Implementation Stage									
	III			Develop		Pilot		Full Implementation Stage							
	IV&V					Develop		Pilot		Full Implementation Stage					
Higher priority trades (2-3 trades)	II					Develop		Pilot		Full Implementation Stage					
	III							Develop		Pilot		Full Implementation			
	IV&V									Develop		Pilot		Full Impl	
Other trades	II							Develop		Pilot		Full Implementation			
	III									Develop		Pilot		Full Impl	
	IV&V										Develop		Pilot		

Source: JICA Project Team

**Figure 5.1 Road Map to Expand CBT in All Sectors**

### 5.2.3 Integration of CBT Certificates into the Current Certification System

As the CBT approach is markedly different from the conventional training approach currently used in Iran, the certificates to be issued from the two systems may not be comparable. Consequently in the development and pilot stages, two different certificates have to be issued from the separate systems. In other words, the TVTCs selected for the pilot stage of the TVT reform process can award the CBT Certificate level II similar to the one produced in the Australian Qualifications Framework, while other TVTCs providing the conventional courses can issue the current Grade 1 Certificate.

### 5.2.4 Strengthening of Instructors' Industrial Attachment

Since CBT is a system that is intended to produce employable trainees, instructors should have a sufficient level of work experience in industry. In this regard, key criteria for the recruitment of new instructors for the system should be an appropriate professional qualification (not necessarily a university degree) and a suitable period of industry experience.

All instructors should be regularly given opportunities to undertake industrial attachment in relevant industries. Since it takes a long period of industrial attachment to cover all training skills, the industrial attachment should be designed so that instructors can acquire skills in incremental steps. In the Automotive sector, for example, instructors could progressively focus their attachments on different areas of competence. (For example, the attachment program could include: the area of transmission for the 1st attachment, brake systems for the 2nd, electrical for the 3rd, engines for the 4th and so on.

### 5.2.5 Facilities & Equipment of TVTC

On-the-job training is the best form of training that can be provided to ensure that trainees have the knowledge and skills to successfully complete all required occupational tasks. The only training providers that can provide really effective on-the-job training are industry providers. It is possible and necessary, however, for both public and private training providers to enable trainees as far as can be practicably possible, to work in what is often referred to as simulated workplaces. In other words, training organizations need to be able to provide as many relevant facilities and equipment as they can acquire to enable trainees to carry out all required job tasks.

### 5.2.6 Curriculum & Suitable Training Resources

Development of curriculum and training resources is usually the primary requirement of training providers. In some countries such as Australia, the responsibility for developing

curriculum lies directly with each training provider. Public and private providers in this kind of system cannot gain provider registration unless they can demonstrate the capability to produce curriculum to support delivery of standards. In other systems, there are centrally established agencies/departments which have prime responsibility for developing curriculum.

In the context of TVTO in Iran, the individual TVTCs are not likely to have the capability to produce curriculum on an individual basis. Central management of TVTO would need to amalgamate TVTCs to be able to collectively produce curriculum or need this duty to be ascribed to existing departments/ organizations such as CDC and ITC, or need to establish new departments/organizations to perform, or at least coordinate this function.

It is, of course, possible by adapting fast track approach and purchase existing curriculum from a system such as the Australian one and then customize it to suit the Iranian training context. As demonstrated in the JICA projects, this approach of acquiring curriculum is very feasible and a cheaper option than developing it from scratch.

### **5.2.7 Quality Assurance of Delivering Courses**

The quality of graduate of training from conventional training system in Iran has been assured as external examination department unified management of their quality. Trainees at each TVTC, however, would assess demonstration by trainees at each TVTC in CBT context and therefore establishment of a quality assurance framework to ensure that quality standards are maintained by all providers and that there is continuous improvement. There are three recommended checking mechanisms to assure quality of delivering CBT courses:

#### Approval by P-TVTO (Provincial Office, TVTO) before Start Delivering Courses

Before delivering courses, P-TVTO has to evaluate the capabilities of TVTCs in delivering the CBT courses in consideration of the technical capability of the instructors, and the availability of relevant facilities, training resources and equipment. In particular, all instructors in the respective training areas have to participate in an instructors' training course conducted by ITC in order to understand the basic concepts, objectives and approaches of CBT, together with appropriate training methods, training resources and the process of providing course monitoring and evaluation.

#### Internal Monitoring and Auditing during Course Delivery within each TVTC (during Course Delivery)

Keeping accurate records of each individual's training program, assessment results, course evaluation, recruitment results of trainees and post-training evaluation of trainees who have found relevant employment would be recorded for course improvement and future reference.

#### External monitoring and auditing of TVTC by P-TVTO

P-TVTO should also have an external monitoring and auditing system in order to assure training quality delivered by TVTCs. The major assessment items are 1) recruitment of trainees, 2) training delivery, 3) internal monitoring and evaluation, 4) trainer and 5) training resources.

### **5.3 Establishment and Reinforcement of Major Central Organization**

Establishment and Reinforcement of central level are fundamental for nationwide implementation of CBT approach. The following are some recommendations from JPT toward this.



### Confirmation of the Decision to Reform TVT in Iran by Adopting a CBT Approach

It is first necessary for TVTO's President, and relevant TVTO Deputies, to confirm the necessity to reform TVT in Iran. This should include policy, a comprehensive plan, appropriate institutional settings, allocation of suitable human resources and staff roles & responsibilities, budget, agreement with industry leaders and formulation of agreements with foreign training providers with substantial experience in the adoption of a CBT approach. The next box shows expected responsibilities and composition.

#### **TVTO President and senior manager**

**Mission:** To make judgment at highest level of TVTO to transform training approach in all training institutions within its sphere of responsibility from the traditional one to the CBT.

**Responsibilities:** The responsibilities of the TVTO President include

- ✓ Formation of a Central CBT Implementation Unit (C-CIU);
- ✓ Formal establishment of relevant Industry reference Groups;
- ✓ Assigning ITC to be the Center of Excellence for CBT; and
- ✓ To allocate a suitable budget for activities of C-CIU, IRG, ITC, and all other relevant organizations to start CBT. The major budget are for training, teaching materials and training equipment.

**Composition:** TVTO President and Representatives of all departments and sections in TVTO should be involved.

### Establishment of Central CBT Implementation Unit (C-CIU)

TVTO President and senior manager are decision making body, but not implementing body and therefore TVTO need to establish Central CBT Implementation Unit (C-CIU) which has a function to coordinate relevant organization to promote implementing CBT system. The next box shows expected responsibilities and composition. The next box shows expected responsibilities and composition.

#### **Central CBT Implementation Unit (C-CIU)**

**Mission:** To plan, implement, monitor, evaluate and coordinate relevant entities to extend the CBT system to all trades in the entire country.

**Responsibilities:**

- ✓ All relevant decision making and communication with all relevant entities including TVTO, provincial TVTO<sup>20</sup>, ITC, IRG, provincial IRG<sup>21</sup>, TVTCs<sup>22</sup> and industries;
- ✓ Assisting IRGs to conduct training needs analysis and validate national industrial competency standard;
- ✓ Coordination of the delivery of CBT instructors' training at ITC;
- ✓ Development of training packages with ITC and delivery of the Training packages to all relevant provider organizations; and
- ✓ Conduct of an external audit of ITC for quality assurance of course delivery.

**Composition:**

- ✓ Deputy of Research and Planning as chairperson
- ✓ Representatives(s) of Research and Planning in TVTO, ITC, CDC, provincial TVTO, TVTOs and IRG

<sup>20</sup> This is for the development and full implementation stages only.

<sup>21</sup> This is for the full implementation stages only.

<sup>22</sup> This is for the development and full implementation stages only.

### Agreement between TVTO and Industry Leaders to Strengthen Relationship with Industry

Both Central IRG (C-IRG) and Provincial IRG (P-IRG) should be established. The purpose of establishing C-IRG is for developing universal training standard which is relevant across whole Iran.

It is also necessary for TVTO to make agreement with industry leaders to strengthen the relationship by making an official request to industry to formally establish a C-IRG. The Industry Training Management Division of TVTO should be in charge. This Project established an IRG in the automotive service and repair sector already. TVTO should establish IRGs for all the other trades.

The next box shows expected responsibilities and composition of C-IRG.

#### **Central Industrial Reference Group (C-IRG)**

**Missions:** To define 1) units of competency, 2) assessment guidelines and 3) qualifications, reflecting the current industrial training needs.

**Responsibilities:**

- ✓ Review of training packages in other countries (in particular the Australian Training Packages);
- ✓ Selection of training packages to suit the needs of Iranian industries;
- ✓ Customization of Units of Competence (UCs) from foreign countries through the conduct of meetings and interviews with IRG members and other industry representatives if necessary; and
- ✓ Monitoring and evaluation of pilot training courses being implemented in ITC.

**Composition:**

The IRG should consist of experts with a sufficient level of technical experiences in their respective trade, representing large, medium and small scale industries together with representatives of C-CIU. It is recommended that counterpart staff from CDC become the coordinators of the IRG in the first phase of TVT reform.

### Form Agreements with Appropriate Foreign Training Providers

It is recommended that TVTO should make an agreement with appropriate foreign training providers, which has substantial CBT experience, for continuous support in competency standards and curriculum. The contents of agreement include 1) managerial training for relevant TVTO managers in their country, 2) technical training for TVTO instructors in their country, 3) dispatch of their experienced instructors for On-the-job training in Iran and 4) supply of teaching materials for relevant UOCs.

### Assign ITC as the National Center of CBT

TVTO should assign ITC as the national center of CBT with the function of developing each certificate of each trade. The next box shows expected responsibilities and composition of ITC.

**ITC**

**Mission:** To conduct research and development, to deliver trainers' training for CBT and to be the national center of CBT.

**Responsibilities:**

- ✓ Development of teaching materials, training equipment and monitoring and evaluation sheets (ITC could also contract some of this development work to external agencies under their management and supervision);
- ✓ Delivery of trainer's training;
- ✓ Provision of technical inputs to C-CIU for the development of UOCs; and
- ✓ Provision of internal monitoring and auditing to ensure quality of training in the development process of the pilot courses.

**Composition:** All ITC instructors in the relevant departments of the target trades should be involved.

**Assign CP to ITC/CDC Technology Transfer from Counterparts to Others**

The current three counterparts should be assigned to ITC and CDC, thus enabling them to play an important role in expanding the CBT system.

In addition, it is also recommended that additional staff be assigned to work with counterparts in CDC and ITC in order to increase the number of staffs who can use CBT manual developed by the Project. Those new staffs can upgrade their technical level of CBT from understanding theory to practice by joining industry attachment.

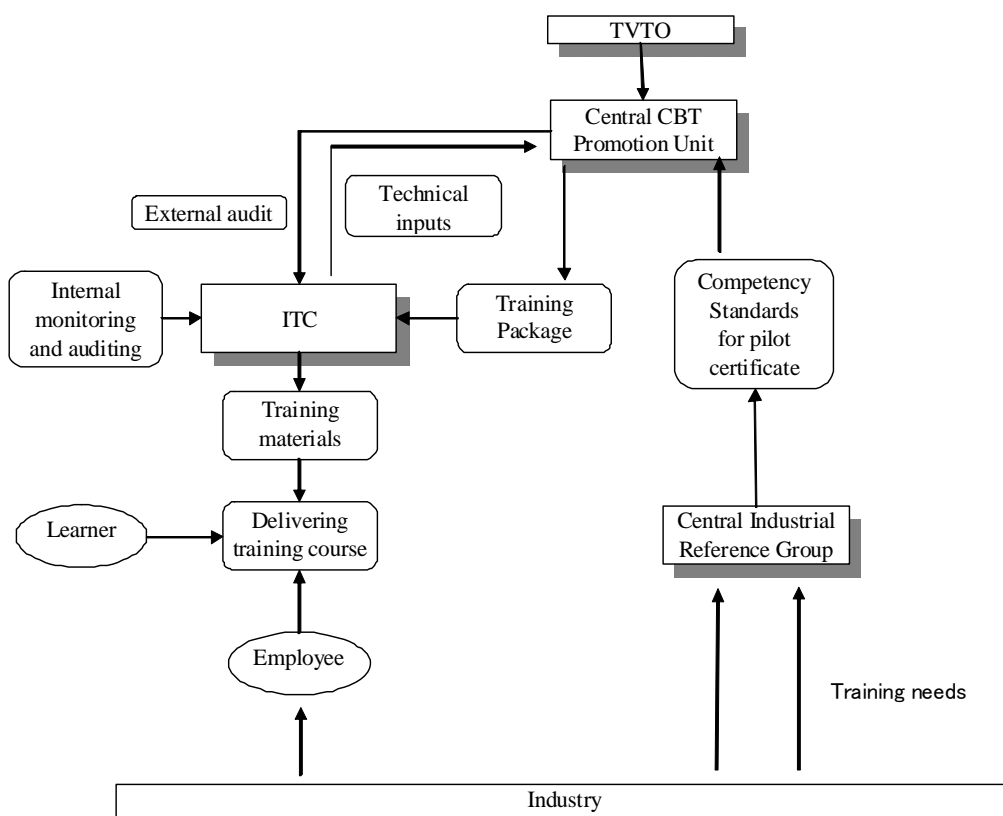
Staff working toward reforming the training approach should be provided with enough incentives, so that further staff can be encouraged to join in the effort to expand the CBT system.

**5.4 Plan of Progressive Implementation**

Apart from establishing and reinforcing the central level, the CBT model would be expanded at the local level. This section describes the implementation plan and the institutional setting of progressive implementation explained in section 5.2.2. There are three stages, namely the development stage, pilot stage and full implementation stage. The details are given below:

**5.4.1 Development Stage**

Four central organizations described already in section 5.3 are related with this development stage: the TVTO President and senior manager, Central CBT Implementation Unit (C-CIU), Central Industrial Reference Group (C-IRG) and ITC. The following figure shows these organizations and their relationships.



Source: JICA Project Team

**Figure 5.2 Proposed Organizational Structures: Development Stage**

The next figure shows a sample implementation plan of the development stage. It is in the scope of the 2011 implementation plan to complete the development of certificate II of the Automotive Service and Repair, half of which has been completed by the Project in 2010. It was recommended (as can be seen in Figure 5.1) to develop only certificate II of the Automotive Service and Repair to enable the developers (mainly ITC trainers) to be familiar with the CBT approach.

		Year	2011											
		Month	1	2	3	4	5	6	7	8	9	10	11	12
Auto-mechanic Certificate II: Development stage														
1	Restructure Central-CIU		■											
2	Restructure IRG		■											
3	Redesign training package for Certificate II			■	■									
4	Assign new instructors				■									
5	Preparation for workbooks				■	■	■							
6	Recruit trainees					■								
7	Commence Part 1 of Certificate II					■	■	■	■					
8	Implement industrial attachment									■	■	■		
9	Commence Part 2 of Certificate II										■	■	■	
10	Internal monitoring						■	■	■	■	■	■	■	■
11	External monitoring												■	■
12	Evaluation											■	■	
13	Revise workbooks												■	■
14	Finalize training package for Certificate II													■
15	Implement trainers' training for selected TVTCs for Phase 2													■

Source: JICA Project Team

**Figure 5.3 Implementation Plan for Phase 1**

### 5.4.2 Pilot Stage

In addition to the four organizations described in relation to the Development Stage, three additional organizations are expected to play the following roles in the Pilot Stage.

#### **Provincial TVTO (P-TVTO)**

**Mission:** To encourage and assist all TVTCs to transform the TVT system in provinces from the conventional to the CBT system.

**Responsibilities:**

- ✓ Formation of Provincial CBT Implementation Units (P-CIU);
- ✓ Formation of Provincial IRGs (P-IRG)<sup>23</sup>;
- ✓ Selection of suitable TVTCs to serve as model training centers for the application of the CBT approach; and
- ✓ Allocation of an appropriate budget for activities of the P-CIU, P-IRG and selected TVTCs to start CBT. A major component of the budget will be for training, production of training resources and other materials and training equipment.

**Composition:** Representatives of all departments and sections in P-TVTO should be involved.

#### **Provincial CBT Implementation Unit (P-CIU)**

**Mission:** To coordinate all relevant organizations to develop, implement, monitor and evaluate the plan to extend the CBT system to all trades in the province.

**Responsibilities:**

- ✓ Making decisions and communicating with all relevant entities including TVTO, provincial TVTO, ITC, IRGs, provincial IRG<sup>24</sup>, TVTCs and industries;
- ✓ Assisting P-IRG to conduct training needs analysis in the province in order to adjust the national industrial competency standards<sup>25</sup>;
- ✓ Making all arrangements for instructors' training provided by ITC;
- ✓ Provision of training packages and training equipment to TVTCs; and
- ✓ Provision of external auditing to TVTCs.

**Composition:**

- ✓ Deputy of Research and Planning in P-TVTO as chairperson
- ✓ Representatives(s) of Research and Planning in P-TVTO, C-TVTOs, P-IRG<sup>26</sup> and TVTCs

<sup>23</sup> This is for the full implementation stage only.

<sup>24</sup> This is for the full implementation stage only.

<sup>25</sup> This activity is for the full implementation stage only.

<sup>26</sup> This is for the full implementation stage only.

**Selected TVTCs**

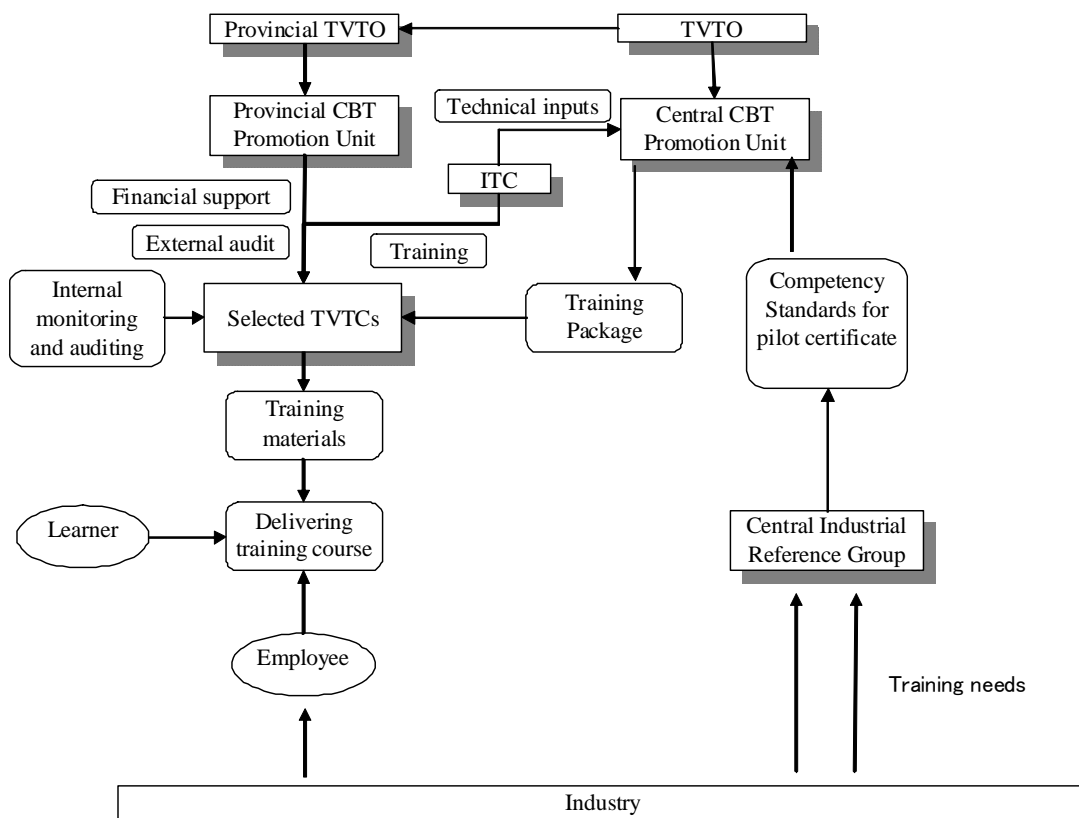
**Mission:**  
To pilot the CBT courses developed by ITC and to be model training centers in the province.

**Responsibilities:**

- ✓ Learning to deliver CBT courses by participation in CBT instructors' training courses delivered by ITC. (The CBT instructor training courses will include how to use teaching materials, training equipment and monitoring and evaluation sheets);
- ✓ Preparation for delivery of CBT courses;
- ✓ Delivery of CBT courses;
- ✓ Conduct of internal monitoring and audit; and
- ✓ Reporting of lessons learned from the process of CBT course delivery to P-CIU.

**Composition:** All TVTC instructors in the relevant departments should be involved.

The following figure shows these organizations with their relationships.



Source: JICA Project Team

**Figure 5.4 Proposed Organizational Structures: Pilot Stage**

Pilot activities for the Automotive Service and Repair Certificate II would be implemented at selected TVTCs starting in 2012. Concurrently with piloting the Automotive Service and Repair Certificate II at selected TVTCs, the Automotive Service and Repair Certificate III will be developed in 2012 and 2013. Figure 5.5 shows the implementation plan of both certificates.

	Year	2012												2013							
		Month	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7
<b>Auto-mechanic Certificate II: Pilot stage</b>																					
1	Review training package for Certificate II	■	■																		
2	Prepare for training facilities		■	■																	
3	Recruit trainees			■																	
4	Commence Part 1 of Certificate II			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
5	Implement industrial attachment						■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
6	Commence Part 2 of Certificate II																				
7	Internal monitoring			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
8	External monitoring																				
9	Evaluation																				
10	Revise workbooks																				
11	Finalize training package for Certificate II																				
12	Implement trainers' training for other TVTCs																				
<b>Auto-mechanic Certificate III: Development stage</b>																					
1	Restructure Central-CIU	■	■																		
2	Restructure IRG	■	■																		
3	Training needs survey		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
4	Design training package for Certificate III																				
5	Assign new instructors																				
6	Preparation for workbooks																				
7	Recruit trainees																				
8	Commence Part 1 of Certificate III																				
9	Implement industrial attachment																				
10	Commence Part 2 of Certificate III																				
11	Internal monitoring																				
12	External monitoring																				
13	Evaluation																				
14	Revise workbooks																				
15	Finalize training package for Certificate III																				
16	Implement trainers' training for selected TVTCs for Phase 3																				

Source: JICA Project Team

**Figure 5.5 Implementation Plan for Year 2012 and 2013**

### 5.4.3 Full Implementation Stage

In the full implementation stage, in addition to the seven aforementioned organizations allotted for the development and pilot stages, the provincial Industrial Reference Group (P-IRG) is expected to play the following roles:

#### ***Provincial Industrial Reference Group (P-IRG)***

**Missions:** 1) to identify the current industrial training needs in the province, 2) to adjust training packages by reflecting the local needs and 3) to provide feedback regarding the local needs to the IRG.

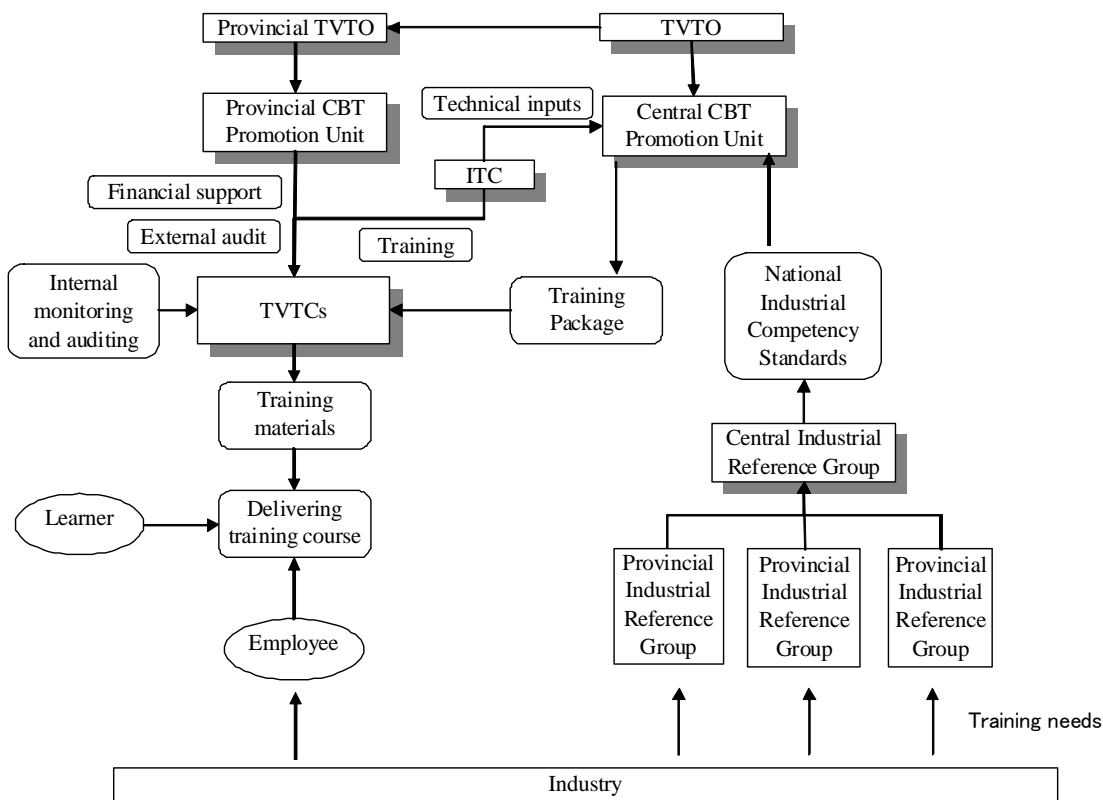
#### **Responsibilities:**

- ✓ Identification of the current industrial training needs in the province;
- ✓ Review of training packages given by the C-CIU; and
- ✓ Customization and adaptation of training packages to suit local industry training needs.

#### **Composition:**

The P-IRG should consist of experts with a sufficient level of technical experience in their respective trades, representing large, medium and small scale industries and representatives of the P-CIU.

The following figure shows these organizations and their relationships.



Source: JICA Project Team

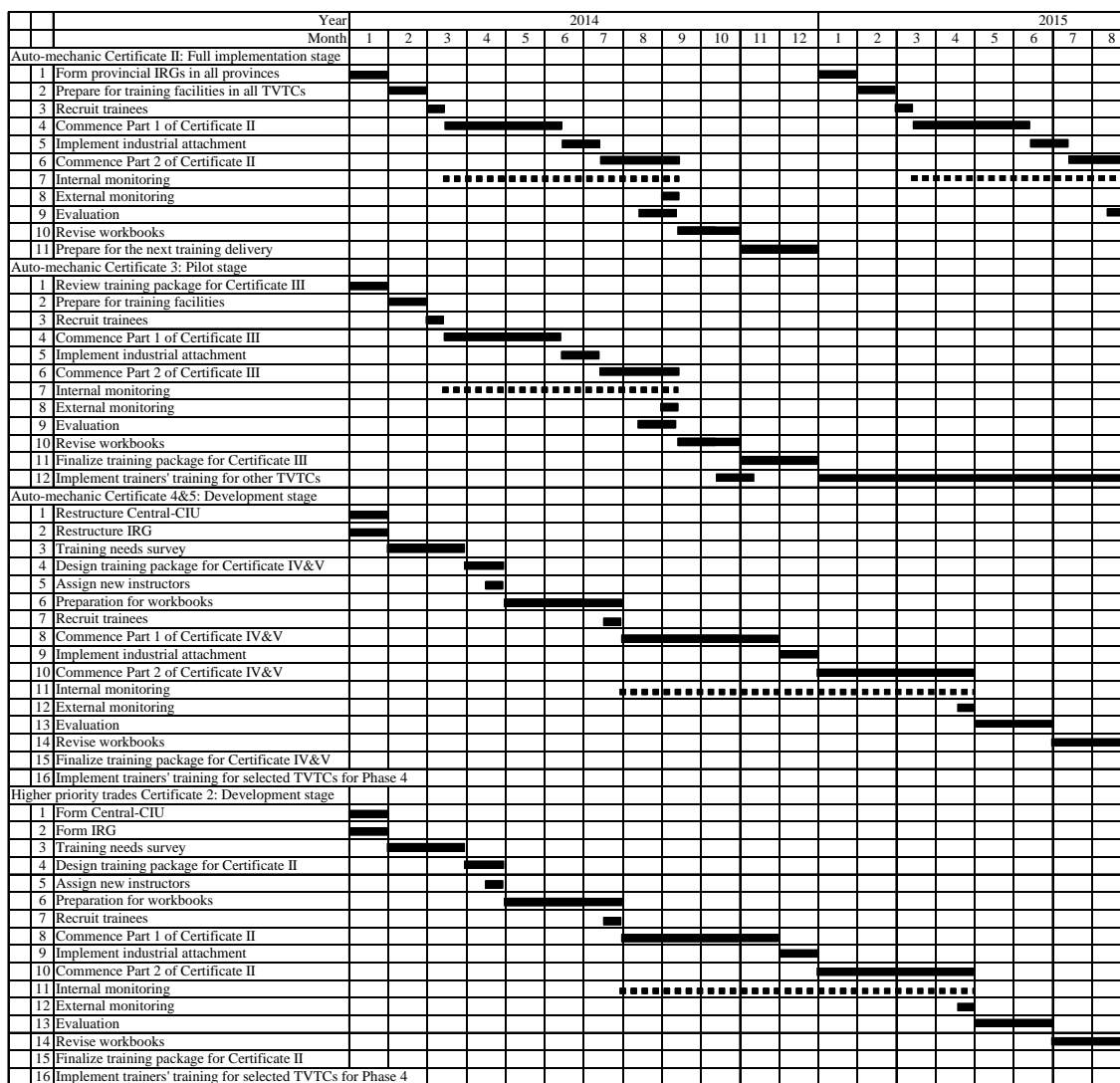
**Figure 5.6 Proposed Organizational Structures: Full Implementation Stage**

The following four types of activities will be implemented concurrently in year 2014

- ✓ Full implementation of the Automotive Service and Repair Certificate II (at all TVTCs)
- ✓ Pilot of the Automotive Service and Repair Certificate III (at selected all TVTCs)
- ✓ Development of the Automotive Service and Repair Certificate IV and V (at ITC)
- ✓ Development of the Highly Priority Trade Certificate II (at ITC)

The implementation plan for these activities is described below:





Source: JICA Project Team

**Figure 5.7 Implementation Plan for Year 2014 and 2015**

The use of the CBT manual (Appendix N) through the above plan is highly recommended for its smooth implementation. It is hoped that the TVTO will incorporate these plans successfully using the plan outlined in this chapter and the manual in Appendix N.



**Appendix A:**

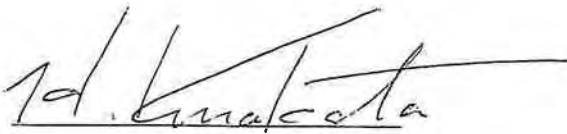
**R/D between JICA and the Authorities Concerned of the Government of the Islamic Republic of Iran on Japanese Technical Cooperation for the Project for Strengthening Technical and Vocational Training Management Skills in TVTO**

RECORD OF DISCUSSIONS  
BETWEEN  
JAPAN INTERNATIONAL COOPERATION AGENCY  
AND  
THE AUTHORITIES CONCERNED OF THE GOVERNMENT OF  
THE ISLAMIC REPUBLIC OF IRAN  
ON JAPANESE TECHNICAL COOPERATION  
FOR THE PROJECT FOR STRENGTHENING TECHNICAL AND VOCATIONAL  
TRAINING MANAGEMENT SKILLS  
IN TECHNICAL AND VOCATIONAL TRAINING ORGANIZATION

The Japan International Cooperation Agency (hereinafter referred to as "JICA") had a series of discussions through the Resident Representative of JICA Iran Office in the Islamic Republic of Iran (hereinafter referred to as "I.R.Iran") with the Iranian authorities concerned with respect to desirable measures to be taken by JICA and the Government of I.R.Iran for the successful implementation for the above-mentioned project.

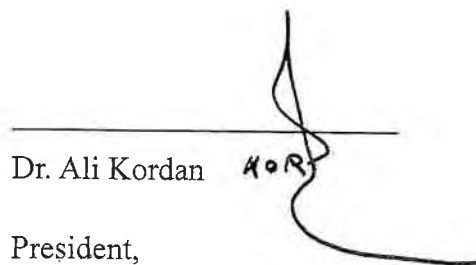
As a result of the discussions, JICA and the Iranian authorities concerned agreed on the matters referred to in the document attached hereto.

Tehran, April 21 2007



Mr. Hiroshi Kurakata

Resident Representative  
Japan International Cooperation Agency  
Iran Office



Dr. Ali Kordan

President,  
Technical and Vocational Training Organization,  
Vice Minister,  
Ministry of Labor and Social Affairs,  
The Islamic Republic of Iran

## THE ATTACHED DOCUMENT

### I. COOPERATION BETWEEN JICA and the Government of I.R.Iran

1. The Government of I.R.Iran will implement the Project for Strengthening Technical and Vocational Training Management Skills in Technical and Vocational Training Organization (hereinafter referred to as "the Project") in cooperation with JICA.
2. The Project will be implemented in accordance with the Master Plan which is given in Annex I.

### II. MEASURES TO BE TAKEN BY JICA

In accordance with the laws and regulations in force in Japan, JICA will take, at its own expense, the following measures according to the normal procedures under the Colombo Plan Technical Cooperation Scheme.

#### 1. DISPATCH OF JAPANESE EXPERTS

JICA will provide the services of the Japanese experts as listed in Annex II.

#### 2. PROVISION OF MACHINERY AND EQUIPMENT

JICA will provide such machinery, equipment and other materials (hereinafter referred to as "the Equipment") necessary for the implementation of the Project as listed in Annex III. The Equipment will become the property of the Government of I.R.Iran upon being delivered C.I.F. (cost, insurance and freight) to the Iranian authorities concerned at the ports and/or airports of disembarkation.


#### 3. TRAINING OF IRANIAN PERSONNEL IN JAPAN



JICA will receive the Iranian personnel connected with the Project for technical training in Japan.

### III. MEASURES TO BE TAKEN BY THE GOVERNMENT OF I.R.IRAN


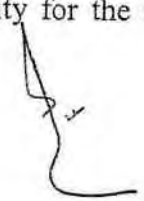
1. The Government of I.R.Iran will take necessary measures to ensure that the self-reliant operation of the Project will be sustained during and after the period of Japanese technical cooperation, through full and active involvement in the Project by all related authorities, beneficiary groups and institutions.
2. The Government of I.R.Iran will ensure that the technologies and knowledge acquired by the Iranian nationals as a result of the Japanese technical cooperation will contribute to the Iranian economic and social development of I.R.Iran.
3. The Government of I.R.Iran will grant in Iranian privileges, exemptions and benefits to the Japanese experts referred to in II-1 above and their families, which are no less favorable than those accorded to experts of third countries working in I.R.Iran under the Colombo Plan Technical Cooperation Scheme.
4. The Government of I.R.Iran will ensure that the Equipment referred to in II-2 above will be utilized effectively for the implementation of the Project in consultation with the Japanese experts referred to in Annex II.
5. The Government of I.R.Iran will take necessary measures to ensure that the knowledge and experience acquired by the Iranian personnel from technical training in Japan will be utilized effectively in the implementation of the Project.
6. In accordance with the laws and regulations in force in I.R.Iran, the Government of I.R.Iran will take necessary measures to provide at its own expense:



- (1) Services of the Iranian counterpart personnel and administrative personnel as listed in Annex IV;
  - (2) Land, buildings and facilities as listed in Annex V;
  - (3) Supply or replacement of machinery, equipment, instruments, vehicles, tools, spare parts and any other materials necessary for the implementation of the Project, other than the Equipment provided by JICA under II-2 above ;
  - (4) Means of transport and travel allowances for the Japanese experts for official travel within I.R.Iran; and
  - (5) Suitably furnished accommodation for the Japanese experts and their families.
7. In accordance with the laws and regulations in force in I.R.Iran, the Government of I.R.Iran will take necessary measures to meet
- (1) Expenses necessary for transportation within I.R.Iran for the Equipment referred to in II-2 above as well as for the installation, operation and maintenance thereof;
  - (2) Customs duties, internal taxes and any other charges, imposed in I.R.Iran on the Equipment referred to in II-2 above; and
  - (3) Running expenses necessary for the implementation of the Project.

#### IV. ADMINISTRATION OF THE PROJECT

1. President of Technical and Vocational Training Organization (hereinafter referred to as "TVTO") will bear overall responsibility for the administration



and implementation of the Project.

2. Principal Advisor to Head of TVTO/Japan Desk will be responsible for the managerial matters of the Project.
3. Deputy of Research and Development, and Deputy of Technical and Training will be responsible for the technical matters of the Project.
4. The Japanese Chief Advisor will provide necessary recommendations and advice to the president of TVTO on any matters pertaining to the implementation of the Project.
5. The Japanese experts will give necessary technical guidance and advice to the Iranian counterpart personnel on technical matters pertaining to the implementation of the Project.
6. For the effective and successful implementation of technical cooperation for the Project, a Joint Coordinating Committee (hereinafter referred to as "JCC") will be established whose functions and composition are described in Annex VI.

## V. JOINT EVALUATION

Evaluation of the Project will be conducted jointly by JICA and the Iranian authorities concerned, at the middle and during the last six months of the cooperation term in order to examine the level of achievement.

## VI. CLAIMS AGAINST JAPANESE EXPERTS

The Government of I.R.Iran undertakes to bear claims, if any arises, against the Japanese experts engaged in technical cooperation for the Project resulting from,





occurring in the course of, or otherwise connected with the discharge of their official functions in I.R.Iran except for those arising from the willful misconduct or gross negligence of the Japanese experts.

#### VII. MUTUAL CONSULTATION

There will be mutual consultation between JICA and I.R.Iran on any major issues arising from, or in connection with this Attached Document.

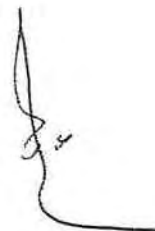
#### VIII. MEASURES TO PROMOTE UNDERSTANDING OF AND SUPPORT FOR THE PROJECT

For the purpose of promoting support for the Project among the people of I.R.Iran, the Government of I.R.Iran will take appropriate measures to make the Project widely known to the people of I.R.Iran.

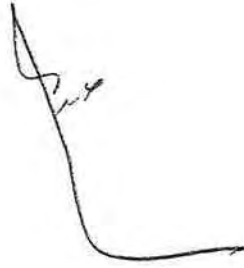
#### IX. TERM OF COOPERATION

The duration of the technical cooperation for the Project under this Attached Document consists of the two stages. The Stage one (1) is planned as two (2) years and the Stage two (2) is planned as one and half (1.5) years. Consequently, the duration is three (3) and a half years in total, from 1<sup>st</sup> July 2007.

- ANNEX I      MASTER PLAN
- ANNEX II     LIST OF JAPANESE EXPERTS
- ANNEX III    LIST OF MACHINERY AND EQUIPMENT
- ANNEX IV    LIST OF IRANIAN COUNTERPART AND ADMINISTRATIVE PERSONNEL



ANNEX V LIST OF LAND, BUILDINGS AND FACILITIES  
ANNEX VI JOINT COORDINATING COMMITTEE



## **ANNEX I      MASTER PLAN OF THE PROJECT**

### **1. Objective of the Project**

(1) Overall Goal

Unemployment, especially of youth and women is improved

(2) Project Purpose

TVTO's training management cycle is improved.

### **2. Period and Stages of the Project**

The project period is three and a half years, which consists of two stages:

(1) Stage 1 (two years): Strengthening the training management of TVTO through the introduction of a tentative system

(2) Stage 2 (one and a half years): Monitoring, evaluation and consolidation of the tentative system

### **3. Outputs of the Project**

(1) TVTO is able to assess the training needs in labor market more efficiently.

(2) TVTO develops, reviews and updates the training course standard and curriculum based on the result of the labor market needs analysis.

(3) TVTO improves its monitoring and evaluation system.

(4) TVTO develops a management improvement plan based on the review of the pilot training course(s).

The Output (1), (2) and (3) are mainly for stage 1, and Output (4) is for stage 2.

### **4. Activities of the Project**

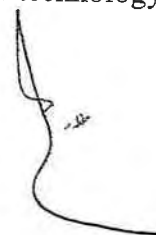
(1)-1. To develop needs assessment study plan for pilot training course(s).

In the process of planning, the following activities are to be considered.

a) To clarify the process of the needs assessment study,

b) To establish a comprehensive system to access the job information and training needs, and

c) To establish the function to access the information on new technology



- (1)-2. To conduct the training needs assessment study
- (1)-3. To select the training course(s) to be revised for the pilot training implementation
- (1)-4. To apply the pilot training needs assessment study to other training course(s)

- (2)-1. To review the present system of standard and curriculum development and revision

In the process of revision, the module system is to be considered to respond to the labor market needs

- (2)-2. To revise a standard(s) and a curriculum(s) for a pilot training course(s)
- (2)-3. To design a pilot course(s)
- (2)-4. To develop guidelines for training materials
- (2)-5. To prepare the necessary equipment for the pilot course(s)
- (2)-6. To deploy the appropriate instructors
- (2)-7. To implement a pilot course(s)
- (2)-8. To identify the problems of a pilot course(s) and reflect it in the revised standard and curriculum

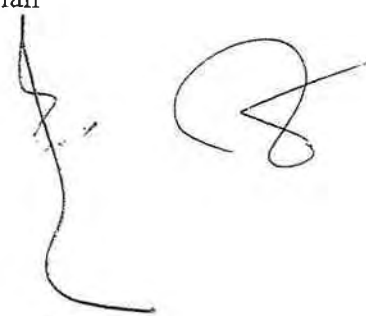
- (3)-1. To plan the training monitoring and evaluation

In the process of planning, the method of aptitude test is to be reviewed

- (3)-2. To conduct the training course evaluation
- (3)-3. To conduct the training course monitoring

- (4)-1. To review the pilot training course(s)

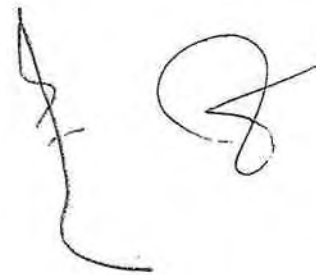
- (4)-2. To summarize the experience and lessons of the pilot training course(s)
- (4)-3. To develop a plan of training management improvement plan

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## ANNEX II LIST OF JAPANESE EXPERTS

1. Chief Advisor
2. Expert(s) on Vocational Training Management
3. Expert(s) on Training Needs Assessment and Analysis
4. Expert(s) on Training Standard and Curriculum
5. Expert(s) on Training Monitoring and Evaluation
6. Other Expert(s) will be assigned when necessary for smooth and effective implementation of the Project.

Note: Each expert could concurrently act as expert in another field, if necessary.

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### ANNEX III LIST OF MACHINERY AND EQUIPMENT

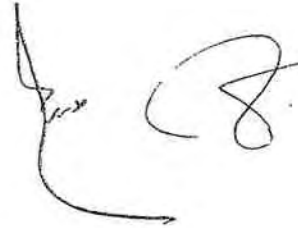
1. Necessary equipment for implementation of the Project will be provided.

Equipment planned to supply is as follows:

Office equipment

Note:

The detailed specifications and quantity of the above-mentioned equipment to be provided each year will be discussed in principle every year between the JICA experts and the Iranian counterpart personnel based on the annual plan of the Project, within the allocated budget of the Japanese fiscal year (from April to March).

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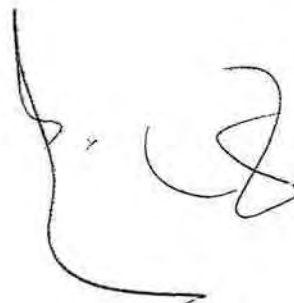
**ANNEX IV LIST OF IRANIAN COUNTERPART AND ADMINISTRATIVE PERSONNEL**

1. Counterpart personnel

- (1) Principal Advisor to Head of TVTO/Japan Desk
- (2) Deputy of Research and Development, TVTO
- (3) Deputy of Technical Training, TVTO
- (4) Deputy of Administration and Financial, TVTO
- (5) Deputy of Research and Development from Instructor Training Center (ITC)
- (6) Executive Director of Training and Implementation, TVTO
- (7) Senior Staff (s) of Pilot Regional Office, TVTO
- (8) Senior Staff (s) of concerning departments of TVTO Headquarters

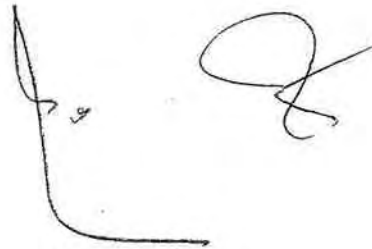
2. Administrative Personnel

- (1) Secretaries
- (2) Translator
- (3) Drivers
- (4) Accountant

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**ANNEX V LIST OF LAND, BUILDINGS AND FACILITIES**

1. Land, buildings and facilities which is necessary for the Project
2. Room space and necessary infrastructure facilities for installation and storage of the equipment
3. Offices and basic logistics facilities for the Japanese experts
4. Other facilities mutually agreed upon as necessary

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## **ANNEX VI JOINT COORDINATING COMMITTEE**

### **1. Functions**

The Joint Coordinating Committee (hereinafter referred to as "JCC"), will meet at least once a year or whenever the necessity arises, in order to fulfill the following functions:

- (1) To formulate the work plan of the project and to coordinate and monitor the overall progress of the Project based on the Plan of Operation within the framework of the Record of Discussions
- (2) To review the result of the annual work plan and the progress of the technical cooperation
- (3) To exchange views on major issues that may arise during the implementation of the Project

### **2. Membership**

The members of the JCC shall comprise a chairperson, members and observers. The chair may declare closed session against the observers. The rules and guidelines for the management of the JCC will be determined as the initial stage of the project.

#### (1) Chairperson

- a. President of Technical and Vocational Training Organization (TVTO)

#### (2) Iranian side

- a. Principal Adviser to the head of TVTO/Japan Desk
- b. Deputy of Research and Development, TVTO
- c. Deputy of Technical and Training, TVTO
- d. Deputy of Administration and Financial, TVTO
- e. President of Instructor Training Center
- f. Director General of International Relations, Ministry of Labor and Social Affairs

#### (3) Japanese side

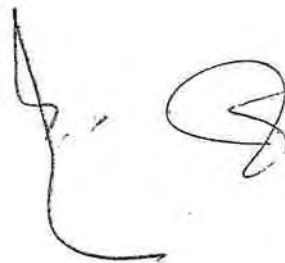
- a. Chief Advisor
- b. Expert(s) on Vocational Training Management
- c. Expert(s) on Training Needs Assessment and Analysis
- d. Expert(s) on Training Standard and Curriculum



- e. Expert(s) on Training Monitoring and Evaluation
- f. Resident Representative of JICA Iran Office
- g. Other personnel concerned, to be dispatched by JICA, if necessary

(4) Observers

- a. Official(s) of the Embassy of Japan in the I.R.Iran may attend the JCC as an observer(s). The chairperson is able to name new members or request the attendance of other participants, as necessary, upon agreement of the JCC.

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**Appendix B:**

**M/M between JICA and TVTO of the Islamic Republic of Iran on the Project for Strengthening Technical and Vocational Training Management Skills in TVTO**

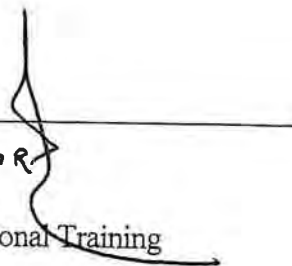
**MINUTES OF MEETINGS  
BETWEEN  
JAPAN INTERNATIONAL COOPERATION AGENCY  
AND  
TECHNICAL AND VOCATIONAL TRAINING ORGANIZATION OF  
THE ISLAMIC REPUBLIC OF IRAN  
FOR  
THE PROJECT FOR STRENGTHENING TECHNICAL AND VOCATIONAL  
TRAINING MANAGEMENT SKILLS  
IN  
TECHNICAL AND VOCATIONAL TRAINING ORGANIZATION**

The Japan International Cooperation Agency (hereinafter referred to as "JICA") had a series of discussions and exchange of views, through the Resident Representative of JICA Iran Office, with Technical Vocational Training Organization (hereinafter referred to as "TVTO") for the purpose of working out the details of the Project for Strengthening Technical and Vocational Training Management Skills in TVTO (hereinafter referred to as "the Project"). As a result of the discussions, JICA and TVTO agreed to summarize the matters referred to in the document attached hereto as a supplement to the Record of Discussions signed on April 21, 2007.

Tehran, April 21, 2007



Mr. Hiroshi Kurakata  
Resident Representative  
Iran Office  
Japan International Cooperation Agency



Dr. Ali Kordon  
President,  
Technical and Vocational Training  
Organization  
Vice Minister,  
Ministry of Labor and Social Affairs  
The Islamic Republic of Iran

## ATTACHED DOCUMENT

### 1. PDM

JICA explained that the Project Design Matrix (hereafter referred to as the "PDM") is commonly used in Japanese technical cooperation in order to manage and implement projects efficiently and effectively. It will also be used as a reference for monitoring and evaluating the Project.

As a result of discussions, both sides agreed to apply the PDM as shown in Annex 1 to the Project with the following understanding:

- (1) The PDM is a logically designed matrix which defines the initial understanding of the framework of technical cooperation for the Project and indicates the logical steps toward the achievement of the Project purpose.
- (2) The PDM is to be flexibly revised according to the progress and achievements of the Project, upon approval by the Joint Coordinating Committee.
- (3) XX in the PDM indicators need to be identified the appropriate quantities according to the training needs survey conducted in the Project.

### 2. Tentative Schedule of Implementation

Tentative schedule of the Project is shown in Annex 2.

### 3. Plan of Operation

Plan of Operation will be formulated at the initial stage of the project in accordance with the PDM.

### 4. Clarification of the descriptions in the Record of Discussions

- (1) As for Articles I.1, III.1 to III.7

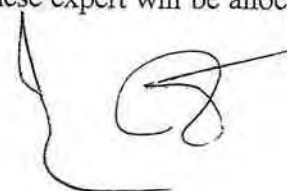
JICA and TVTO confirmed that the TVTO, on behalf of the Government of the Islamic Republic of Iran, would implement the project and take the necessary measures to ensure the items indicated at Articles III.1 to III.7.

- (2) As for Article II.2 and Annex III

The office equipment referred in ANNEX III of R/D means daily equipments for the daily operation of the Project, such as personal computer(s), printer, photocopy machine, overhead projector, etc. The procurement of necessary equipments for the pilot training courses will be covered by TVTO.

- (3) As for Article III.6.(2) and ANNEX V

JICA and TVTO confirmed that the office space for the Japanese expert will be allocated



in the TVTO main building. TVTO may temporarily allocate it outside of its building under the following conditions;

- (a) To be convenient for the daily access to TVTO main building
- (b) To make all necessary effort to find the office space inside the building in the earliest timing

In order for TVTO to prepare the adequate office space, JICA will inform the essential information i.e. number of Japanese expert(s), expected furniture, to TVTO upon the commencement of the Project .

- (4) As for Article III.6 (4)

JICA and TVTO confirmed that travel allowance for the Japanese experts would be covered by JICA for all of their official travels within I.R. Iran.

- (5) As for Article III.6 (5)

JICA and TVTO confirmed that furnished accommodation for the Japanese experts and their families would be covered by JICA.

#### **5. Administration of the Project**

With reference to Article IV of the Record of Discussions, JICA and TVTO sides agreed that under the overall responsibility of the President of TVTO, coordination of administration and implementation of the Project will be carried out through mutual consultation by both the Iranian and the Japanese side.

#### **List of Annex**

- Annex 1: Project Design Matrix (PDM)
- Annex 2: Tentative Schedule of Implementation
- Annex 3: Organization Chart



## Annex 1. Project Design Matrix (PDM)

Project Title : **Project for Strengthening the TVT Management Skills in TVTO**

Period : **Three and a half Years**

(First stage: **Two years** Second stage: **One and a half years**)

Target Group : (Direct) **TVTO staff and instructors**

(Indirect) **TVTO trainees**

Project Site : **to be identified**

Ver.0

Period : **July 2007- December 2010**

Date : **April 21, 2007**

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
<b><u>Overall Goal</u></b>			
Unemployment, especially of youth and women is improved	1. Unemployment rate of youth and women is improved.	1. Statistics of labor employment	1. Improvement plan is applied to other TVTO regional offices.
<b><u>Project Purpose</u></b>			
TVTO's training management cycle is improved.	<ol style="list-style-type: none"> <li>1. XXX<sup>1</sup> pilot training course is planned and implemented until the end of the 1 phase.</li> <li>2. Experiments and lessons from the implementation of pilot training course are analyzed and reported until the end of the 1 phase.</li> <li>3. The trainee's satisfaction rate of pilot training is better than that of other courses</li> <li>4. Based on the experience and lessons from pilot training course(s), a plan for training management improvement is completed at the end of the Project.</li> </ol>	<ol style="list-style-type: none"> <li>1. Training course plan and the Project progress reports</li> <li>2. Pilot training reports</li> <li>3. Pilot training reports</li> <li>4. Plan for training management improvement</li> </ol>	<ol style="list-style-type: none"> <li>1. The government of the Islamic Republic of Iran does not change TVET policies.</li> <li>2. The government of Japan doesn't change its policy of ODA to Iran drastically.</li> </ol>
<b><u>Outputs</u></b>			
<p><u>Output 1:</u> TVTO is able to assess the training needs in labor market more efficiently.</p> <p><u>Output 2:</u> TVTO develops, reviews and updates the training course standard and curriculum based on the result of the labor market needs analysis.</p>	<ol style="list-style-type: none"> <li>1-1. TVTO staffs understand the training management process of Japanese training institutions.</li> <li>1-2. Revising plan of training needs assessment method is developed.</li> <li>1-3. Training needs is assessed and analyzed.</li> <li>2-1. XXX training course standard(s) and/or curriculum(s) are revised as a trial.</li> <li>2-2. XXX pilot training course plans are developed.</li> </ol>	<ol style="list-style-type: none"> <li>1-1. Evaluation documents of the training in Japan</li> <li>1-2. Revising plan</li> <li>1-3. Assessment report</li> <li>2-1. Revised standard(s) and curriculum(s)</li> <li>2-2. Pilot training course plan</li> </ol>	<ol style="list-style-type: none"> <li>1. The Project's C/Ps form TVTO remain at TVTO HQ and related office.</li> </ol>

<sup>1</sup> The figures will be decided according to the result of the training needs survey conducted in the Project.

<p><u>Output 3:</u> TVTO improves its monitoring and evaluation system.</p>	<p>3-1.Training monitoring and evaluation guideline is developed. 3-2.Training monitoring and evaluation is conducted and analyzed.</p>	<p>3-1.Monitoring and evaluation guideline 3-2.Monitoring and evaluation reports</p>	
<p><u>Output 4:</u> TVTO develops a management improvement plan based on the review of the pilot training course(s)</p>	<p>4-1. The experience and lessons are summarized as a report 4-2. A plan for training management improvement is developed</p>	<p>4-1.Pilot training course report 4-2. Plan for training management improvement</p>	

**Activities of the Project**

**Output 1**  
 Activity 1-1: To develop needs assessment study plan for pilot training course(s).  
 · In the plan, following activities are to be considered  
 --To clarify the process of the needs assessment study  
 --To establish a comprehensive system to access the job information and training needs  
 --To establish the function to access the information on new technology  
 Activity 1-2: To conduct the training needs assessment study.  
 Activity 1-3: To select the training course(s) to be revised for pilot training implementation.  
 Activity 1-4: To apply the pilot training needs assessment study to other training course(s)

**Output 2**  
 Activity 2-1: To review the present system of standard and curriculum development and revision.  
 · In the revising plan, following activities are to be considered  
 --To develop module systems to respond to the labor market needs  
 Activity 2-2: To revise a standard(s) and a curriculum(s) for a pilot training course(s)  
 Activity 2-3: To design a pilot course(s)  
 Activity 2-4: To develop guidelines for training materials  
 Activity 2-5: To prepare the necessary equipment for the pilot

**Inputs**

- Japanese Side:
1. Dispatch of Japanese experts
  2. Provision of equipment
  3. Training of counterpart personnel in Japan
  4. Supplementary budget for local expenditure
- Iranian Side :
1. Counterpart personnel
    - ~~Principal Advisor /Head of the Japan Desk~~
    - Deputy of Technical and Training Affairs
    - Deputy of Research and Development
    - Deputy of Administration and Financial
    - Deputy of Research and Development from Instructor Training Center (ITC)
    - Executive Director of Training and Implementation
    - Senior staff(s) from ITC
    - Senior staff(s) from Pilot Regional Office
  2. Administrative staff
    - Secretaries
    - Translator
    - Drivers
    - Accountant
  3. Land, buildings and facilities
    - Offices / work space for Japanese experts in TVTO
    - Headquarters
  4. Allocation of budget



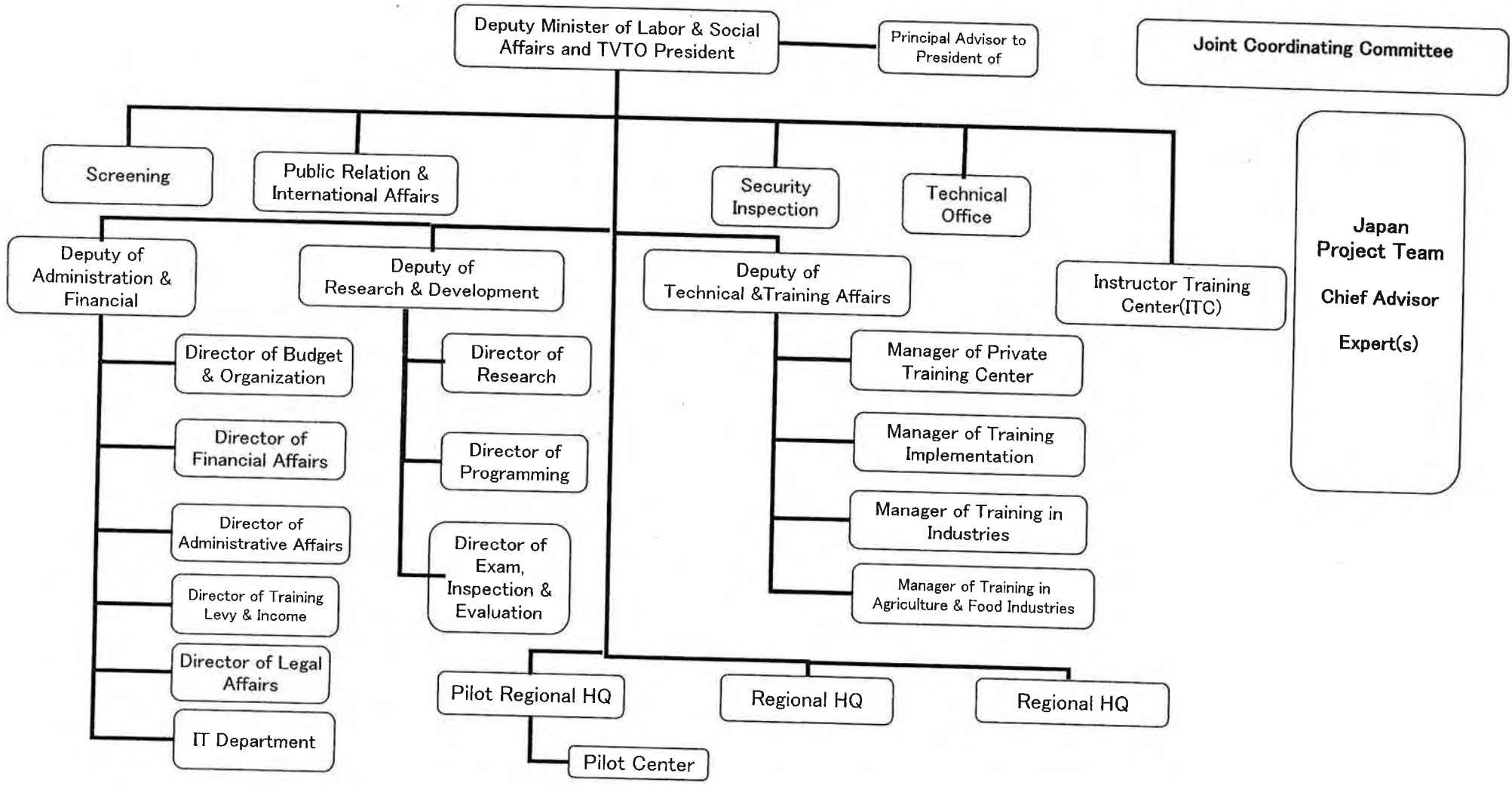
<p>course(s)</p> <p>Activity 2-6: To deploy appropriate instructors</p> <p>Activity 2-7: To implement a pilot course(s)</p> <p>Activity 2-8: To identify the problems of a pilot course(s) and reflect it in the revised standard and curriculum.</p> <p><b>Output 3</b></p> <p>Activity 3-1: To plan training monitoring and evaluation</p> <ul style="list-style-type: none"> <li>• In the revising plan, following activities are to be considered</li> <li>• --To review the method of aptitude test</li> </ul> <p>Activity 3-2: To conduct the training course evaluation</p> <p>Activity 3-3: To conduct the training course monitoring</p> <p><b>Output 4</b></p> <p>Activity 4-1: To review the pilot training course(s)</p> <p>Activity 4-2: To summarize the experience and lessons of the pilot training course(s)</p> <p>Activity 4-3: To develop a plan of training management improvement plan</p>	<p>Expenses for the implementation of the pilot training course(s), Salaries and other allowances for the Iranian staff</p>	<p><b><u>Preconditions</u></b></p> <p>-To confirm that TVTO will not be privatized.</p>
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### Annex 2 Tentative Schedule of the Project

	2007												2008												2009												2010											
	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12						
	Stage 1												Stage 2																																			
Planning detailed activities	████████████████████																																															
Needs assessment study	████████████████████																																															
Training standard/curriculum revision													████████████████████																																			
Preparation for and implementation of a pilot course(s)													████████████████████																																			
Training course monitoring and evaluation													████████████████████																																			
Training standard/curriculum revision (2nd term)																									████████████████████												████████████████████											
Preparation for and implementation of a pilot course(s) (2nd term)																									████████████████████												████████████████████											
Training course monitoring and evaluation																									████████████████████												████████████████████											
Development of TVTO's management improvement plan																									████████████████████												████████████████████											

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**Appendix C:**

**PDM Version 0**

## Appendix C Project Design Matrix (PDM) Version 0

Project Title : **Project on Strengthening the TVT Management Skills in TVTO**

**Ver.0**

Period : **Three and a half Years**

Project Site : **To be identified**

Period : **July 2007-December 2010**

Target Group : (Direct) **TVTO staff and instructors**

Date : **April 21, 2007**

(Indirect) **TVTO trainees**

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
<b><u>Overall Goal</u></b>			
Unemployment, especially of youth and women is improved.	1. Unemployment rate of youth and women is improved.	1. Statistics of labor employment	Improvement plan is applied to other TVTO regional offices.
<b><u>Project Purpose</u></b>			
TVTO's training management cycle is improved.	1. XXX Pilot training course is planned and implemented until the end of the 1 phase 2. Experiences and lessons from the implementation of pilot training course are analyzed and reported. 3. The trainees' satisfaction rate of pilot training is better than that of other courses. 4. Based on the experience and lessons from pilot training course, a plan for training management improvement is completed at the end of the Project.	1. Training course plan and the Project progress reports 2. Pilot training reports 3. Pilot training reports 4. Plan for training management improvement	1. The government of the Islamic Republic of Iran does not change TVET policies. 2. The government of Japan doesn't change its policy of ODA to Iran drastically.
<b><u>Outputs</u></b>			
<u>Output 1:</u> TVTO is able to assess the training needs in labor market more efficiently.  <u>Output 2:</u> TVTO develops, reviews and updates the training course standard and curriculum based on the industry training requirement.  <u>Output 3:</u> TVTO improves its monitoring and evaluation system.	1-1. TVTO staffs understand the training management process of Japanese training institutions. 1-2. Training needs assessment method is revised. 1-3. Training needs is assessed and analyzed.  2-1. XXX training course standard(s) and/or curriculum(s) are revised as a trial. 2-2. XXX pilot training course plans are developed.  3-1. Training monitoring and evaluation guideline is developed. 3-2. Training monitoring and evaluation is conducted and analyzed.	1-1. Evaluation documents of the training in Japan 1-2. Revising plan 1-3. Assessment reports  2-1. Revised standard(s) and curriculum(s) 2-2. Pilot training course plan  3-1. Monitoring and evaluation guideline 3-2. Monitoring and evaluation reports	The Project's C/Ps from TVTO remain at TVTO HQ and related office.

<p><u>Output 4:</u> TVTO develops a management improvement plan based on the review of the pilot training course(s).</p>	<p>4-1.The experience and lessons are summarized as a report. 4-2.A plan for training management improvement is developed.</p>	<p>4-1.Pilot training course report 4-2.Plan for training management improvement</p>	
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<b><u>Activities of the Project</u></b>	<b><u>Inputs</u></b>	<b><u>Preconditions</u></b>
<p><b>Output 1</b> Activity 1-1: To develop needs assessment study plan for pilot training course In the plan, following activities are to be considered --To clarify the process of the needs assessment study --To establish a comprehensive system to access the job information and training needs --To establish the function to access the information on new technology Activity 1-2: To conduct the training needs assessment study Activity 1-3: To select the training course(s) to be revised for pilot training implementation Activity 1-4: To apply the pilot training needs assessment study to other training course(s)</p> <p><b>Output 2</b> Activity 2-1: To review the present system of standard and curriculum development and revision In the revising plan, following activities are to be considered --To develop module systems to respond to the labor market needs Activity 2-2: To revise a standard(s) and a curriculum(s) for a pilot training course(s) Activity 2-3: To design a pilot course(s) Activity 2-4: To develop guidelines for training materials Activity 2-5: To prepare the necessary equipment for the pilot course(s) Activity 2-6: To deploy appropriate instructors Activity 2-7: To implement a pilot course(s) Activity 2-8: To identify the problems of a pilot course(s) and reflect it in the revised standard and curriculum</p>	<p><u>Japanese Side:</u> 1. Dispatch of Japanese experts 2. Provision of equipment 3. Training of counterpart personnel in Japan 4. Supplementary budget for local expenditure</p> <p><u>Iranian Side :</u> 1. Counterpart personnel - Principal Advisor / Head of the Japan Desk - Deputy of Technical and Training Affairs - Deputy of Research and Development - Deputy of Administration and Financial - Deputy of Research and Development from Instructor Training Centre (ITC) - Executive Director of Training and Implementation - Senior staff(s) from ITC - Senior staff (s) from Pilot Regional Office 2. Administrative staff - Secretaries - Translator - Drivers - Accountant 3. Land, buildings and facilities Offices / work space for Japanese experts in TVTO Headquarters 4. Allocation of budget Expenses for the implementation of the pilot training course(s), salaries and other allowances for the Iranian staff</p>	<p>To confirm that TVTO will not be privatized.</p>

**Output 3**

Activity 3-1: To plan training monitoring and evaluation

In the revising plan, following activities are to be considered

--To review the method of aptitude test

Activity 3-2: To conduct the training course evaluation

Activity 3-3: To conduct the training course monitoring

**Output 4**

Activity 4-1: To review the pilot training course(s)

Activity 4-2: To summarize the experience and lessons of the  
pilot training course(s)

Activity 4-3: To develop a plan of training management  
improvement plan

**Appendix D:**

**PDM Version 1**



## Appendix D Project Design Matrix (PDM) Version 1

Project Title : **Project on Strengthening the TVT Management Skills in TVTO**

**Ver.1**

Period : **Three and a half Years**

Project Site : **Tehran**

Period : **July 2007-December 2010**

Target Group : (Direct) **TVTO staff and instructors**

Date : **December 15, 2009**

(Indirect) **TVTO trainees**

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
<b><u>Overall Goal</u></b>			
The National Vocational Qualification in labor force is improved.	1. Participation rate in labor force is increased.	1. Statistics of labor employment	Improvement plan is applied to other TVTO regional offices.
<b><u>Project Purpose</u></b>			
TVTO's training management cycle is improved.	1. Pilot training course is planned and implemented twice until the end of the project. 2. Experiences and lessons from the implementation of pilot training course are analyzed and reported. 3. The trainees' satisfaction rate of pilot training is better than that of other courses. 4. Based on the experience and lessons from pilot training course, a plan for training management improvement is completed at the end of the Project.	1. Training course plan and the Project progress reports 2. Pilot training reports 3. Pilot training reports 4. Plan for training management improvement	1. The government of the Islamic Republic of Iran does not change TVET policies. 2. The government of Japan doesn't change its policy of ODA to Iran drastically.
<b><u>Outputs</u></b>			
<u>Output 1:</u> TVTO is able to assess the training needs in labor market more efficiently.  <u>Output 2:</u> TVTO develops, reviews and updates the training course standard and curriculum based on the industry training requirement.  <u>Output 3:</u> TVTO improves its monitoring and evaluation system.	1-1. TVTO staffs understand the training management process of Japanese training institutions. 1-2. Training needs assessment method is revised. 1-3. Training needs is assessed and analyzed.  2-1. Technical area for pilot training course is selected based on training needs analysis 2-2. Training course standard and/or curriculum are developed as a trial. 2-3. Pilot training course plans are developed.  3-1. Training monitoring and evaluation manual is developed. 3-2. Training monitoring and evaluation is conducted and analyzed.	1-1. Evaluation documents of the training in Japan 1-2. Manual of Training Needs Assessment 1-3. Assessment reports  2-1. Assessment reports 2-2. Revised standard and curriculum 2-3. Pilot training course plan  3-1. Manual of Monitoring and evaluation 3-2. Monitoring and evaluation	The Project's C/Ps from TVTO remain at TVTO HQ and related office.

<p><u>Output 4:</u> TVTO develops a training management improvement plan based on the review of the pilot training course.</p>	<p>4-1.The experience and lessons are summarized as a report. 4-2.A plan for training management improvement is developed.</p>	<p>reports 4-1.Pilot training course report 4-2.Plan for training management improvement</p>	
--	--	--	--

<b><u>Activities of the Project</u></b>	<b><u>Inputs</u></b>	<b><u>Preconditions</u></b>
<p><b>Output 1</b> Activity 1-1: To develop needs assessment study plan for pilot training course Activity 1-2: To establish working group with industry Activity 1-3: To conduct the training needs assessment study Activity 1-4: To select the training course to be revised for pilot training implementation Activity 1-5: To apply the pilot training needs assessment study to other training course</p> <p><b>Output 2</b> Activity 2-1: To review the present system of standard and curriculum development and revision Activity 2-2: To revise a standard and a curriculum for a pilot training course Activity 2-3: To design a pilot course Activity 2-4: To develop guidelines for training materials Activity 2-5: To prepare the necessary equipment for the pilot course Activity 2-6: To conduct instructor training for pilot course Activity 2-7: To implement a pilot course Activity 2-8: To identify the problems of a pilot course and reflect it in the revised standard and curriculum</p> <p><b>Output 3</b> Activity 3-1: To plan training monitoring and evaluation Activity 3-2: To conduct the training course evaluation Activity 3-3: To conduct the training course monitoring</p>	<p><u>Japanese Side:</u> 1. Dispatch of Japanese experts 2. Provision of equipment 3. Training of counterpart personnel in Japan 4. Supplementary budget for local expenditure</p> <p><u>Iranian Side :</u> 1. Counterpart personnel - Principal Advisor / Head of the Japan Desk - Deputy of Technical and Training Affairs - Deputy of Research and Development - Deputy of Administration and Financial - Deputy of Research and Development from Instructor Training Centre (ITC) - Executive Director of Training and Implementation - Senior staff(s) from ITC - Senior staff (s) from Pilot Regional Office 2. Administrative staff - Secretaries - Translator - Drivers - Accountant 3. Land, buildings and facilities Offices / work space for Japanese experts in TVTO Headquarters 4. Allocation of budget Expenses for the implementation of the pilot training course(s), salaries and other allowances for the Iranian staff</p>	<p>To confirm that TVTO will not be privatized.</p>

**Output 4**

Activity 4-1: To review the pilot training course

Activity 4-2: To summarize the experience and lessons of the pilot training course

Activity 4-3: To develop a plan of training management improvement plan

**Appendix E:**

**PDM Version 2**

## ANNEX IV Project Design Matrix (PDM)

Project Title : **Project on Strengthening the TVT Management Skills in TVTO**

**Ver.2**

Period : **Three and a half Years**

Project Site : **Tehran, Karaj**

Period : **July 2007-December 2010**

Target Group : (Direct) **TVTO staff and instructors**  
(Indirect) **TVTO trainees**

Date : **October 31, 2010**

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
<b><u>Overall Goal</u></b>			
The CBT approach becomes a basis of the training structure of TVTO.	<ol style="list-style-type: none"> <li>1. CBT manual (final version) in Persian is produced.</li> <li>2. Representatives (core instructors) of each TVTC take CBT training courses conducted by TVTO.</li> </ol>	<ol style="list-style-type: none"> <li>1. Manual in Persian</li> <li>2. Training record in TVTO</li> </ol>	CBT manual is applied to other TVTO regional offices.
<b><u>Project Purpose</u></b>			
TVTO's training management cycle is improved.	<ol style="list-style-type: none"> <li>1. Pilot training course is planned and implemented twice until the end of the project.</li> <li>2. Experiences and lessons from the implementation of pilot training course are analyzed and reported.</li> <li>3. The trainees' satisfaction rate of pilot training is better than that of other courses.</li> <li>4. Based on the experience and lessons from pilot training course, a plan for training management improvement is completed at the end of the Project.</li> </ol>	<ol style="list-style-type: none"> <li>1. Training course plan and the Project progress reports</li> <li>2. Pilot training reports</li> <li>3. Pilot training reports</li> <li>4. Plan for training management improvement</li> </ol>	<ol style="list-style-type: none"> <li>1. The government of the Islamic Republic of Iran does not change TVET policies.</li> <li>2. The government of Japan doesn't change its policy of ODA to Iran drastically.</li> </ol>
<b><u>Outputs</u></b>			
<p><u>Output 1:</u> TVTO is able to assess the training needs in labor market more efficiently.</p> <p><u>Output 2:</u> TVTO develops, reviews and updates the training course standard and curriculum based on the industry training requirement.</p> <p><u>Output 3:</u> TVTO improves its monitoring and evaluation system.</p>	<ol style="list-style-type: none"> <li>1-1. TVTO staffs understand the training management process of Japanese training institutions.</li> <li>1-2. Training needs assessment method is revised.</li> <li>1-3. Training needs is assessed and analyzed.</li> <li>2-1. Technical area for pilot training course is selected based on training needs analysis</li> <li>2-2. Training course standard and/or curriculum are developed as a trial.</li> <li>2-3. Pilot training course plans are developed.</li> <li>3-1. Training monitoring and evaluation manual is developed.</li> <li>3-2. Training monitoring and evaluation is conducted and analyzed.</li> </ol>	<ol style="list-style-type: none"> <li>1-1. Evaluation documents of the training in Japan</li> <li>1-2. Manual of Training Needs Assessment</li> <li>1-3. Assessment reports</li> <li>2-1. Assessment reports</li> <li>2-2. Revised standard and curriculum</li> <li>2-3. Pilot training course plan</li> <li>3-1. Manual of Monitoring and evaluation</li> </ol>	The Project's C/Ps from TVTO remain at TVTO HQ and related office.

<p><u>Output 4:</u> TVTO develops a training management improvement plan based on the review of the pilot training course.</p>	<p>4-1.The experience and lessons are summarized as a report. 4-2.A plan for training management improvement is developed.</p>	<p>3-2.Monitoring and evaluation reports  4-1.Pilot training course report 4-2.Plan for training management improvement</p>	
<b><u>Activities of the Project</u></b>		<b><u>Inputs</u></b>	<b><u>Preconditions</u></b>
<p><b>Output 1</b> Activity 1-1: To develop needs assessment study plan for pilot training course Activity 1-2: To establish working group with industry Activity 1-3: To conduct the training needs assessment study Activity 1-4: To select the training course to be revised for pilot training implementation Activity 1-5: To apply the pilot training needs assessment study to other training course</p> <p><b>Output 2</b> Activity 2-1: To review the present system of standard and curriculum development and revision Activity 2-2: To revise a standard and a curriculum for a pilot training course Activity 2-3: To design a pilot course Activity 2-4: To develop guidelines for training materials Activity 2-5: To prepare the necessary equipment for the pilot course Activity 2-6: To conduct instructor training for pilot course Activity 2-7: To implement a pilot course Activity 2-8: To identify the problems of a pilot course and reflect it in the revised standard and curriculum</p> <p><b>Output 3</b> Activity 3-1: To plan training monitoring and evaluation Activity 3-2: To conduct the training course evaluation Activity 3-3: To conduct the training course monitoring</p>	<p><u>Japanese Side:</u> 1. Dispatch of Japanese experts 2. Provision of equipment 3. Training of counterpart personnel in Japan 4. Supplementary budget for local expenditure</p> <p><u>Iranian Side :</u> 1. Counterpart personnel - Principal Advisor / Head of the Japan Desk - Deputy of Technical and Training Affairs - Deputy of Research and Development - Deputy of Administration and Financial - Deputy of Research and Development from Instructor Training Centre (ITC) - Executive Director of Training and Implementation - Senior staff(s) from ITC - Senior staff (s) from Pilot Regional Office 2. Administrative staff - Secretaries - Translator - Drivers - Accountant 3. Land, buildings and facilities Offices / work space for Japanese experts in TVTO Headquarters 4. Allocation of budget Expenses for the implementation of the pilot training course(s), salaries and other allowances for the Iranian staff</p>	<p>To confirm that TVTO will not be privatized.</p>	

**Output 4**

Activity 4-1: To review the pilot training course

Activity 4-2: To summarize the experience and lessons of the pilot training course

Activity 4-3: To develop a plan of training management improvement plan

**Appendix F:**

**M/M between the Japanese Mid-Term Review Team and the Authorities Concerned of the Government of the Islamic Republic of Iran on the Japanese Technical Cooperation for the Project for Strengthening Technical and Vocational Training Management Skills in TVTO**



**IN THE NAME OF GOD**

**MINUTES OF MEETING**  
**BETWEEN**  
**THE JAPANESE MID-TERM REVIEW TEAM**  
**AND**  
**THE AUTHORITIES CONCERNED OF THE GOVERNMENT OF**  
**THE ISLAMIC REPUBLIC OF IRAN**  
**ON**  
**THE JAPANESE TECHNICAL COOPERATION**  
**FOR THE PROJECT FOR STRENGTHENING TECHNICAL AND VOCATIONAL**  
**TRAINING MANAGEMENT SKILLS**  
**IN TECHNICAL AND VOCATIONAL TRAINING ORGANIZATION**

The Japanese Mid-Term Review Team (hereinafter referred to as “the Japanese Team”), organized by the Japan International Cooperation Agency (hereinafter referred to as “JICA”) headed by Mr. Nobuyuki KONISHI conducted in the Islamic Republic of Iran from 6<sup>th</sup> December to 16<sup>th</sup> December 2009, the mid-term review of the “Project for Strengthening Technical and Vocational Training Management Skills in Technical and Vocational Training Organization” (hereinafter referred to as “the Project”) for the project period from July 2007 to December 2009.

During its stay in the Islamic Republic of Iran, the Japanese Team had a series of discussions with the authorities concerned, jointly reviewed the achievement of the Project, and exchanged views on the project performance based on five (5) criteria for project evaluation.

As a result of the discussions, the Japanese Team and the concerned authorities of the Islamic Republic of Iran authorities agreed on the matter referred to in the document attached hereto.

Tehran, 16<sup>th</sup> December 2009

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Mr. Nobuyuki KONISHI  
Team Leader  
Japanese Mid-Term Review Team  
Japan International Cooperation Agency  
Japan



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Mr. Mohammad Taghi SABERI  
Deputy of Research and Planning/ Project  
Manager  
Technical and Vocational Training Organization  
The Islamic Republic of Iran



## 1. Introduction

### 1.1 Objective of the Mid-Term Review

The Mid-Term Review was conducted with the following objectives;

- (1) To review and confirm the achievement and implementation process of the Project based on the documents such as the Record of Discussion (hereinafter referred to as "R/D") and the Project Design Matrix (hereinafter referred to as "PDM"). The revision from the original PDM ver.0 to PDM ver.1 is clarified in ANNEX IV.
- (2) To evaluate the activities and achievement in terms of five evaluation criteria, namely Relevance, Effectiveness, Efficiency, Impact and Sustainability
- (3) To conclude whether the Project will be able to achieve the purpose and realize the outputs and to clarify issues and their countermeasures for the remaining period
- (4) To share a common understanding among stakeholders regarding recommendations for further improvements of the Project and the lessons that can be applied to other similar ongoing and future JICA projects

### 1.2 Methodology of the Mid-Term Review

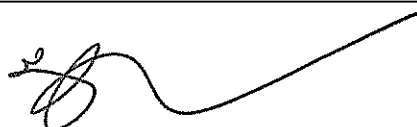
The Project was jointly reviewed in a collaborative manner between the concerned authorities of the Iranian side and the Japanese side. A series of questionnaires and interviews are prepared for different groups of stakeholders. For the Mid-term Review, the Five Evaluation Criteria was applied. The Five Evaluation Criteria is related to PDM as shown in the following table.

**Relationship between PDM and Five Evaluation Criteria**

	Relevance	Effectiveness	Efficiency	Impact	Sustainability
Overall Goal					
Project Purpose					
Outputs					
Inputs					

### 1.3 Members of the Team

No.	Name	Title / Field	Occupation
1	Mr. Nobuyuki KONISHI	Leader	Director Technical and Higher Education Division, Human Development Department, JICA
2	Mr. Mitsunori FURUTA	Vocational Training	Deputy Director (International Cooperation) Employment and Human Resources Development Organization of Japan
3	Mr. Kenichi SHIROZU	Cooperation Planning	Program Officer Technical and Higher Education Division, Human Development Department, JICA
4	Ms. Kinuko MITANI	Evaluation Analysis	Consultant IC Net Limited



#### 1.4 Schedule of the Review Team

See attached ANNEX I

#### 1.5 Major Interviewees by the Team

See attached ANNEX II

### 2. Project Performances and Implementation Process

Achievement of the Project was measured in terms of inputs, activities, outputs and project purpose, all of which were based on the Project Design Matrix (PDM) ver.0. Narrative summary of PDM ver.0 is shown below.

#### Narrative Summary of PDM ver.0 agreed in April 2007

Overall Goal	Unemployment, especially of youth and women is improved
Project Purpose	TVTO*'s training management cycle is improved.
Output 1	TVTO is able to assess the training needs in labor market more efficiently.
Output 2	TVTO develops, reviews and updates the training course standard and curriculum based on the result of the labor market needs analysis.
Output 3	TVTO improves its monitoring and evaluation system.
Output 4	TVTO develops a management improvement plan based on the review of the pilot training course.

\* Technical Vocational and Training Organization (hereinafter referred to as "TVTO")

#### 2.1 Input

##### 2.1.1 Japanese Contribution

###### 1) Dispatch of experts

A total of 8 experts have been assigned by December 2009, namely Chief Advisor, Team Leader, Deputy Team Leader / Vocational Training Management expert 1, Vocational Training Management expert 2, Training Needs Assessment and Analysis expert, Training Standard and Curriculum expert, Training Monitoring and Evaluation expert.

###### 2) Provision of equipment and facilities

The total amount of the equipment provided as of December 2009 is approximately IRR133,187,200, which are used for procuring office equipment such as printers, computers and copy machine.

###### 3) Training for counterparts

A total of 8 persons participated in the study tour in Japan arranged under the counterpart training scheme of the Project. Four persons benefited the training "Vocational Training Management" from August to September 2007, and other 4 persons benefited the same training from June to July 2008.

4) National staff members for the Project

A total of 6 staff members are hired by the Project. They are project coordinator, Industrial Reference Group (hereinafter refer to as “IRG”) coordinator, 2 technical interpretators and 2 assistants.

**2.1.2 Iranian Contribution**

1) Appointment of counterpart personnel

At the beginning of the Project, counterpart personnel were appointed as planned. However, during the implementation of the Project, some counterpart personnel were changed due to internal transfer. The present counterpart personnel are shown in ANNEX III.

2) Land and facilities for the project

Provision of working space, facilities, basic furniture and equipment at TVTO and TVTC No. 4 for the experts from the Japanese side have been provided appropriately. Necessary equipments for the pilot course were procured by TVTO.

3) Local expenses

Administrative and operational costs for electricity, water supply, telephone and furniture have been borne by the Iranian side.

Approximately IRR950,000,000 has been borne by the Iranian side.

**2.2 Achievements of the Project**

The results of the Project are highlighted below.

**Results of the Project as of December 2009**

	Results
Overall Goal	It is expected that the training management cycle of TVTO will be improved through the efforts made by the Project. Thus, the Project is expected to contribute in increasing the number of employable youth and women after 3 to 5 years after the completion of the Project.
Project Purpose	The project purpose is most likely achieved due to the effective efforts made by the Iranian counterparts as well as the JICA Project Team. The activities of the Project have been either progressed or completed as per the schedule (i.e., conducting needs assessment, organizing the 1 <sup>st</sup> pilot training course).
Output 1	The Project conducted the planned needs assessment in the course of the project implementation. Based on the discussion and agreement between TVTO and the JICA Project Team, “Automotive Repair and Service Sector” was selected as the focus area of the 1 <sup>st</sup> pilot training course.  TVTO has been able to deepen the understanding of the automobile industry’s training needs through the meetings, workshops and trainings in Japan that have



been organized by the Project.

- Output 2 Under the guidance of the experts from the Japanese side, the first needs assessment was conducted to prepare for the 1<sup>st</sup> pilot training course jointly with the Iranian counterparts. The target group of the needs assessment was the automobile industries, especially in the field of repairs and after service. The Project conducted interviews and questionnaires to the IRG members. Based on the needs analysis of the industry, selection of the training subject for the 1<sup>st</sup> pilot training course was concluded as “Electrical Systems in Automotive Technology Course” between TVTO and the Project.
- The trainers who conducted the 1<sup>st</sup> pilot training course commented that the level of one competency out of the six competencies was too high. The Project is currently preparing for the 2<sup>nd</sup> pilot training course by 1) taking the lesson learned from the 1<sup>st</sup> pilot training course, and 2) applying IRG inputs in order to select appropriate competencies.
- Output 3 The Monitoring and Evaluation expert led the development of monitoring and evaluation system applied to the 1<sup>st</sup> pilot training course. Using the developed system, the 1<sup>st</sup> pilot training course was monitored and evaluated.
- Output 4 The Project plans to conduct 2 pilot training courses. The 1<sup>st</sup> pilot training course was completed in November 2009. It is preparing for the 2<sup>nd</sup> pilot training course. After the completion of the 2<sup>nd</sup> course, the Project plans to compile a report that illustrates the lesson learned through the 2 pilot training courses. The purpose of such report will be for TVTO use in improving its training management.
- 

## **2.3 Implementation Process of the Project**

### **2.3.1 Implementation of Activities**

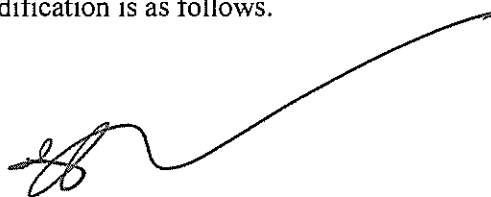
The Project involves the manager and trainers of TVTC No. 4, staff members of Curriculum Development Center (hereinafter referred to as “CDC”) and TVTO headquarters in its implementation so far. It focuses on knowledge transfer from trainer level to top management level in improving the TVTO training management cycle.

### **2.3.2 Project Management**

The Project has been managed jointly by the Iranian side and the Japanese side. The experts and support staff members who are involved in the project implementation are held responsible for the roles and responsibilities defined under the Project in an effective manner.

## **3. Modification of PDM**

Based on the review, the Japanese Team proposed modifications, which was discussed and agreed by Iranian side. PDM ver.0 was revised according to the following modifications and PDM ver.1 was developed as attached in ANNEX IV. Main point of modification is as follows.



### 3.1 Modification of Overall Goal

The initial overall goal “Unemployment, especially of youth and women is improved” is changed to “The National Vocational Qualification in labor force is improved”.

### 3.2 Modification of Output

The initial output 2, “TVTO develops, reviews and updates the training course standard and curriculum based on the result of the labor market needs analysis” was modified to “TVTO develops, reviews and updates the training course standard and curriculum based on the industry training requirement”. The initial output 4 “TVTO develops a management improvement plan based on the review of the pilot training course(s)” was also modified to “TVTO develops a training management improvement plan based on the review of the pilot training course” to suit to the actual implementation.

### 3.3 Modification of Objectively Verifiable Indicators

At the initial stage, some Objectively Verifiable Indicators were shown as XXX. The Japanese Team and the Iranian side agreed to select the indicators which are applicable to the actual conditions. The followings are the agreed changes.

Item	Ver.0	Ver.1
Indicator of Project Purpose	1. XXX pilot training course is planned and implemented until the end of the 1st phase.	1. Pilot training course is planned and implemented twice until the end of the project.
	2. Experiences and lessons from the implementation of pilot training course are analyzed and reported until the end of the 1st phase.	2. Experiences and lessons from the implementation of pilot training course are analyzed and reported.
Indicator of Output 2		2-1. Technical area for pilot training course is selected based on training needs analysis
	2-1. XXX training course standard(s) and/or curriculum(s) are revised as a trial.	2-2. Training course standard and/or curriculum are developed as a trial.
	2-2. XXX pilot training course plans are developed.	2-3. Pilot training course plans are developed.

### 3.4 Modification of Activities of the Project

Based on the actual inputs, Activities of the Project were revised as shown in ANNEX IV. As involvement of industry is one of the important activities of the Project, “To establish working group with industry” was added as Activity 1-2.

## **4. Results of Mid-term Review**

### **4.1 Relevance**

The relevancy of the Project is found to be high.

To implement the 55<sup>th</sup> article of the 4th program of economic, social and cultural development of the Islamic republic of Iran based on restoring structures, facilities and improving technical and vocational training quality with international cooperation in order to develop stable employment in relation to considerable size of economically active population, the relevancy of the purposes of the project is to improve the National Vocational Qualification (NVQ) among labor force is high in this country.

The Government of Japan has been providing assistance to Iran. JICA issued its cooperation plan for Iran in 2007, which highlighted the importance to assist in poverty reduction and increase of employment opportunities. Assistance extended to the TVT sector was sought as a mean to contribute in increasing employment opportunities in Iran.

### **4.2 Effectiveness**

Based on the Results of the Project as of December 2009 highlighted in page 4 and 5, the project purpose will be achieved by the end of the Project because 1) the expected outputs of the Project have been achieved up to conducting the 1<sup>st</sup> pilot training course, and 2) the project activities have been effectively implemented and/or undertaken by the JICA Project Team as well as the Iranian counterparts.

The experience through planning/implementing/monitoring of the pilot training courses planned in the Project has been created an effective and practical learning opportunity for the Iranian counterpart.

### **4.3 Efficiency**

Based on the ratio between the inputs and outputs of the Project, the efficiency of the Project is high because 1) adequate working space and equipment were provided by the Iranian side, 2) appropriate experts from both the Iranian side and the Japanese side have been placed, 3) the cooperation between the Project and the IRG has been established, and 4) the implementation of the 1<sup>st</sup> pilot training course was completed as per the schedule.

### **4.4 Impact**

The Japanese Team found the progress of the Project very effective. The Project has succeed in 1) the establishment of the cooperation between TVTO and the automobile industry, 2) achievement of the purpose of the 1<sup>st</sup> pilot training course, and 3) the introduction of the CBT approach to the Iranian side.



Based on the said reasons above, it is expected the training management cycle of TVTO will be improved. The Project will be able to contribute in developing stable employment.

#### **4.5 Sustainability**

Based on the 3 aspects mentioned below, the developed training management cycle as well as the lesson learned through the Project will be applied and/or scaled up by TVTO.

##### **1) Organizational/policy aspect**

The Iranian side has placed counterparts to work with the experts from the Japanese side. The Project is implementing its activities in collaboration with the automobile industry as well as other concerned stakeholders. The automobile industry has been supporting TVTO. TVTO trainers have been trained by the industry, and the industry has been donating teaching equipments/materials to TVTC. Thus, the collaboration between TVTO and the industry is likely to continue after the completion of the Project.

##### **2) Financial aspect**

The Iranian side has been providing sufficient financial assistance to the Project. Therefore, the Project is expected to complete its activities without any financial issue.

##### **3) Technical aspect**

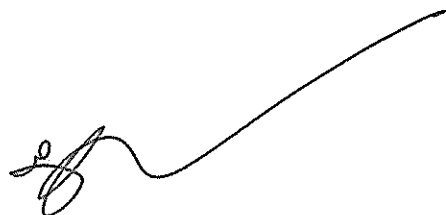
TVTO is currently exploring the effectiveness and relevancy of CBT approach to the TVT sector in Iran. Through the Project, CBT experts have been placed to work with the Iranian counterparts to conduct pilot training courses to examine its effectiveness and relevancy. The Iranian counterparts are developing skills which are needed in CBT introduction in a practical manner, which will contribute in improving their capacity in planning/implementing/monitoring training courses offered by TVTO. Thus, it is expected that the Iranian counterparts will be able to obtain good knowledge and know-how to apply CBT approach to TVTO activities by the end of the Project.

#### **5. Recommendations**

The following recommendations are made based on the result of the mid-term review by the Japanese Team.

##### **5.1 Establishment of the CBT Approach Implementation Structure**

It is recommended that TVTO establishes a CBT approach implementation structure. The implementation structure covers conducting training needs assessment from industries, improving knowledge and skills of trainers, procuring training materials and equipments. The IRG is a good example in involving industries.





To account the sustainability of the Project, it is recommended that a working group be established in TVTO to introduce the CBT approach in a systematic manner in TVTO. The working group shall analyze current vocational training system in Iran and develop the CBT approach introduction plan. The experts from the Japanese side shall play a supporting role in the development of the training management improvement plan.

### **5.2 Exchange of Experience on the CBT approach between CDC and the Project**

In order to implement the CBT approach, further commitment and ownership of TVTO is indispensable. It is necessary to create more opportunities to exchange experiences on the CBT approach between CDC and the Project.

### **6. Conclusion**

The Japanese Team concluded that the project purpose would be achieved by the end of the project period.

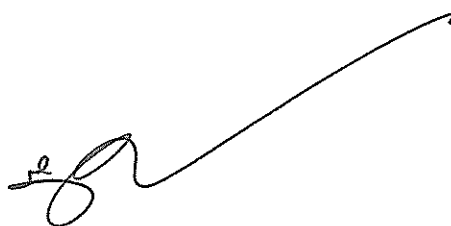
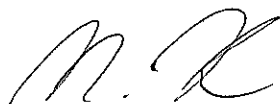
The Japanese Team found the achievement in conducting the 1<sup>st</sup> pilot training course. As per the Five Evaluation criteria applied by JICA, the Japanese Team made an assessment of the project progress. The relevance, efficiency, effectiveness, impact and sustainability of the Project seem to be high.

ANNEX I Schedule of the Mid-Term Review

ANNEX II List of Major Interviewees

ANNEX III Counterpart Personnel

ANNEX IV Project Design Matrix (PDM) Ver.1



ANNEX I Schedule of the Mid-term Review

Date			Evaluation Team			Place
			<u>Mr.Nobuyuki Konishi</u> Team Director Technical and Higher Education Division, Higher Education and Social Security Group, Human Development Department, JICA	<u>Mr.Mitsunori Furuta</u> Deputy Director (International Cooperation) Employment and Human Resources Development Organization of Japan	<u>Mr.Kenichi Shirozu</u> Program Officer Technical and Higher Education Division, Higher Education and Social Security Group, Human Development Department, JICA	
1	5-Dec	Sat				Haneda → Kansai (JL185, 19:50-21:20) Kansai → Dubai (EK317, 23:20-05:40)
2	6-Dec	Sun				Dubai → Tehran (EK971, 07:55-09:35) Meeting with JICA experts: Mr. Nagumo, Ms. Ishimaru, Mr. Ishibashi
3	7-Dec	Mon				9:00 Meeting and Interview TVTC No.4 : Mr.Najibzade and 3 C/P Instructors 11:30 Meeting with JICA expert: Mr. Kevin Observation: TVTC No.4 14:00 Meeting and Interview: 3 C/P Instructors 16:30 JICA IRAN OFFICE
4	8-Dec	Tue				8:30 Meeting with JICA Expert@TVTO 10:00 Meeting with TVTO (overall explanation of survey) Mr.Saberi Individual Meeting and Interview: Ms.Jaymand/Mr.Gofran Meeting with JICA expert: Mr. Roger
5	9-Dec	Wed				9:00-11:00 IRG@Mega Motors 12:00-14:00 IRG@SAIPA Yadak Meeting with JICA expert: Mr. Motomura
6	10-Dec	Thu	Tokyo (Haneda) → Osaka → Dubai	Drafting Report Internal Meeting	Drafting Report Internal Meeting	Drafting Report Internal Meeting
7	11-Dec	Fri	Dubai → Tehran (9:35) Internal Meeting	Internal Meeting	Internal Meeting	Internal Meeting
8	12-Dec	Sat				10:00 IRG@Irankhodro Meeting with JICA expert
9	13-Dec	Sun				9:30 Meeting and Interview: Participants of the training ,TVTC No.4 11:00 Ceremony for cetification TVTC No.4 14:00 Meeting and Intreview: CDC
10	14-Dec	Mon				9:00 ITC(Instructor Traing Center)/Meeting with TVTO
11	15-Dec	Tue				Meeting with TVTO Revision of Minutes of Meeting Signing of Minutes of Meeting
12	16-Dec	Wed				11:00 Report to JICA Iran Office (with Mr.Fujii Second Secretary, embassy of Japan in Iran) Tehran → Dubai (EK978, 21:20-23:50)
13	17-Dec	Thu		Dubai → Bangkok (EK384, 03:15-12:05)		Dubai → Kansai (EK316, 03:30-17:20) Kansai → Haneda (EK317, 18:45-19:55)

## ANNEX II List of Major Interviewees

### Technical and Vocational Training Organization (TVTO)

Mr. Mohammad Taghi SABERI	Deputy of Research and Planning/ Project Manager
Ms. Jaymand PARISA	Project coordinator

### Curriculum Development Center (CDC), TVTO

Mr. Ramak FARAHABADI	Director General
Mr. Hassan GHOFAN	Assistant of technical supervisor

### Technical and Vocational Training Center No. 4 (TVTC No. 4), TVTO

Mr. Hemmat Ali NAJIB ZADEH	Manager
Mr. Seyed Mohsen SALIMIAN	Auto mechanic trainer
Mr. Javad RAFATI	Auto mechanic trainer
Mr. Ebrahim KHALILZADEH	Auto mechanic trainer

### Industries Reference Group (IRG)

Mr. Amir FARSI	Central workshops manager	IRAN KHODRO
Mr. Ali Reza GHAAZELI	Deputy, Administration	IRAN KHODRO
Mr. Ghiyasvani	Training manager	Megamotor
Mr. Ali MOHAMADI	Training Expert	Megamotor
Mr. Payman BAYATN	Head, Planning Department for Training	SAIPA YADAK (SAIPA After Service Services Organization)
Mr. A. KARAFI	Training manager	SAIPA YADAK (SAIPA After Service Services Organization)

JICA Project Team

Mr. Yuichiro MOTOMURA

Mr. Tatsuya NAGUMO

Ms. Nakako ISHIMARU

Mr. Toru ISHIBASHI

Mr. Kunitoshi SAITO

Mr. Kevin JACKSON

Mr. Roger DEZILWA

Mr. Perviz IMANI

Team Leader

Vocational Training Management (1)/

Deputy Team Leader

Vocational Training Management (2)

Training Needs Assessment and Analysis

Training Monitoring and Evaluation

Training Standard and Curriculum/

Automotive

Training Standard and Curriculum/

CBT Advisor

JICA Project Support Advisor

## ANNEX III Counterpart Personnel

### Technical and Vocational Training Organization (TVTO)

Mr. Mohammad Taghi SABERI	Deputy of Research and Planning / Project Manager
Ms. Parisa JAYMAND	Office of Research and Planning / Project coordinator

### Curriculum Development Center (CDC), TVTO

Mr. Ramak FARAHABADI	Director General
Mr. Ebrahim AZAD	Technical Supervisor
Mr. Hassan GHOFRAN	Assistant of technical supervisor

### Technical and Vocational Training Center No. 4 (TVTC No. 4), TVTO

Mr. Hemmat Ali NAJIB ZADEH	Manager
Mr. Seyed Mohsen SALIMIAN	Auto mechanic trainer
Mr. Javad RAFATI	Auto mechanic trainer
Mr. Ebrahim KHALILZADEH	Auto mechanic trainer
Mr. Nazer NIKORAVAN	Auto mechanic trainer

## ANNEX IV Project Design Matrix (PDM)

Project Title : **Project on Strengthening the TVT Management Skills in TVTO**

**Ver.1**

Period : **Three and a half Years**

Project Site : **Tehran**

Period : **July 2007-December 2010**

Target Group : (Direct) **TVTO staff and instructors**  
(Indirect) **TVTO trainees**

Date : **December 15, 2009**

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
<b><u>Overall Goal</u></b>			
The National Vocational Qualification in labor force is improved.	1. Participation rate in labor force is increased.	1. Statistics of labor employment	Improvement plan is applied to other TVTO regional offices.
<b><u>Project Purpose</u></b>			
TVTO's training management cycle is improved.	<ol style="list-style-type: none"> <li>1. Pilot training course is planned and implemented twice until the end of the project.</li> <li>2. Experiences and lessons from the implementation of pilot training course are analyzed and reported.</li> <li>3. The trainees' satisfaction rate of pilot training is better than that of other courses.</li> <li>4. Based on the experience and lessons from pilot training course, a plan for training management improvement is completed at the end of the Project.</li> </ol>	<ol style="list-style-type: none"> <li>1. Training course plan and the Project progress reports</li> <li>2. Pilot training reports</li> <li>3. Pilot training reports</li> <li>4. Plan for training management improvement</li> </ol>	<ol style="list-style-type: none"> <li>1. The government of the Islamic Republic of Iran does not change TVET policies.</li> <li>2. The government of Japan doesn't change its policy of ODA to Iran drastically.</li> </ol>
<b><u>Outputs</u></b>			
<b><u>Output 1:</u></b> TVTO is able to assess the training needs in labor market more efficiently.	<ol style="list-style-type: none"> <li>1-1. TVTO staffs understand the training management process of Japanese training institutions.</li> <li>1-2. Training needs assessment method is revised.</li> <li>1-3. Training needs is assessed and analyzed.</li> </ol>	<ol style="list-style-type: none"> <li>1-1. Evaluation documents of the training in Japan</li> <li>1-2. Manual of Training Needs Assessment</li> <li>1-3. Assessment reports</li> </ol>	The Project's C/Ps from TVTO remain at TVTO HQ and related office.
<b><u>Output 2:</u></b> TVTO develops, reviews and updates the training course standard and curriculum based on the industry training requirement.	<ol style="list-style-type: none"> <li>2-1. Technical area for pilot training course is selected based on training needs analysis</li> <li>2-2. Training course standard and/or curriculum are developed as a trial.</li> <li>2-3. Pilot training course plans are developed.</li> </ol>	<ol style="list-style-type: none"> <li>2-1. Assessment reports</li> <li>2-2. Revised standard and curriculum</li> <li>2-3. Pilot training course plan</li> </ol>	
<b><u>Output 3:</u></b> TVTO improves its monitoring and evaluation system.	<ol style="list-style-type: none"> <li>3-1. Training monitoring and evaluation manual is developed.</li> <li>3-2. Training monitoring and evaluation is conducted and analyzed.</li> </ol>	<ol style="list-style-type: none"> <li>3-1. Manual of Monitoring and evaluation</li> <li>3-2. Monitoring and evaluation</li> </ol>	

<p><u>Output 4:</u> TVTO develops a training management improvement plan based on the review of the pilot training course.</p>	<p>4-1.The experience and lessons are summarized as a report. 4-2.A plan for training management improvement is developed.</p>	<p>reports</p> <p>4-1.Pilot training course report 4-2.Plan for training management improvement</p>	
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<u>Activities of the Project</u>	<u>Inputs</u>	<u>Preconditions</u>
<p><b>Output 1</b> Activity 1-1: To develop needs assessment study plan for pilot training course Activity 1-2: To establish working group with industry Activity 1-3: To conduct the training needs assessment study Activity 1-4: To select the training course to be revised for pilot training implementation Activity 1-5: To apply the pilot training needs assessment study to other training course</p> <p><b>Output 2</b> Activity 2-1: To review the present system of standard and curriculum development and revision Activity 2-2: To revise a standard and a curriculum for a pilot training course Activity 2-3: To design a pilot course Activity 2-4: To develop guidelines for training materials Activity 2-5: To prepare the necessary equipment for the pilot course Activity 2-6: To conduct instructor training for pilot course Activity 2-7: To implement a pilot course Activity 2-8: To identify the problems of a pilot course and reflect it in the revised standard and curriculum</p> <p><b>Output 3</b> Activity 3-1: To plan training monitoring and evaluation Activity 3-2: To conduct the training course evaluation Activity 3-3: To conduct the training course monitoring</p>	<p><u>Japanese Side:</u></p> <ol style="list-style-type: none"> <li>1. Dispatch of Japanese experts</li> <li>2. Provision of equipment</li> <li>3. Training of counterpart personnel in Japan</li> <li>4. Supplementary budget for local expenditure</li> </ol> <p><u>Iranian Side :</u></p> <ol style="list-style-type: none"> <li>1. Counterpart personnel <ul style="list-style-type: none"> <li>- Principal Advisor / Head of the Japan Desk</li> <li>- Deputy of Technical and Training Affairs</li> <li>- Deputy of Research and Development</li> <li>- Deputy of Administration and Financial</li> <li>- Deputy of Research and Development from Instructor Training Centre (ITC)</li> <li>- Executive Director of Training and Implementation</li> <li>- Senior staff(s) from ITC</li> <li>- Senior staff (s) from Pilot Regional Office</li> </ul> </li> <li>2. Administrative staff <ul style="list-style-type: none"> <li>- Secretaries</li> <li>- Translator</li> <li>- Drivers</li> <li>- Accountant</li> </ul> </li> <li>3. Land, buildings and facilities <ul style="list-style-type: none"> <li>Offices / work space for Japanese experts in TVTO Headquarters</li> </ul> </li> <li>4. Allocation of budget <ul style="list-style-type: none"> <li>Expenses for the implementation of the pilot training course(s), salaries and other allowances for the Iranian staff</li> </ul> </li> </ol>	<p>To confirm that TVTO will not be privatized.</p>

<p><b>Output 4</b> Activity 4-1: To review the pilot training course Activity 4-2: To summarize the experience and lessons of the pilot training course Activity 4-3: To develop a plan of training management improvement plan</p>		
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## **Appendix G:**

**M/M between the Japanese Terminal Evaluation Team and the Research and Programming Deputy, Technical and Vocational Training Organization on the Japanese Technical Cooperation for the Project for Strengthening Technical and Vocational Training Management Skills in TVTO**

**IN THE NAME OF GOD**

**MINUTES OF MEETING**  
**BETWEEN**  
**THE JAPANESE TERMINAL EVALUATION TEAM**  
**AND**  
**THE RESEARCH AND PROGRAMMING DEPUTY, TECHNICAL AND**  
**VOCATIONAL TRAINING ORGANIZATION**  
**ON**  
**THE JAPANESE TECHNICAL COOPERATION**  
**FOR THE PROJECT FOR STRENGTHNING TECHNICAL AND VOCATIONAL**  
**TRAINING MANAGEMENT SKILLS**  
**IN TECHNICAL AND VOCATIONAL TRAINING ORGANIZATION**

The Japanese Terminal Evaluation Team (hereinafter referred to as “the Japanese Team”), organized by the Japan International Cooperation Agency (hereinafter referred to as “JICA”) headed by Mr. Nobuyuki KONISHI conducted in the Islamic Republic of Iran from 24<sup>th</sup> October to 2<sup>nd</sup> November 2010, the Terminal Evaluation of the “Project for Strengthening Technical and Vocational Training Management Skills in Technical and Vocational Training Organization” (hereinafter referred to as “the Project”).

During its stay in the Islamic Republic of Iran, the Japanese Team had a series of discussions with the authorities concerned, jointly reviewed the achievement of the Project, and exchanged views on the project performance based on five (5) criteria for project evaluation.

As the result of the discussions, the Japanese Team and the concerned authorities of the Islamic Republic of Iran authorities agreed on the matter referred to in the document attached hereto.

Tehran, 1<sup>ST</sup> November 2010



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Mr. Nobuyuki KONISHI  
Team Leader  
Japanese Terminal Evaluation Team  
Japan International Cooperation Agency  
Japan



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Dr. Ghofrani Mohammad  
Deputy of Research and Planning/ Project  
Manager  
Technical and Vocational Training Organization  
The Islamic Republic of Iran

## 1. Introduction

### 1.1 Objective of the Terminal Evaluation

The Terminal Evaluation was conducted with the following objectives;

- (1) To review and confirm the achievement and implementation process of the Project based on the documents such as the Record of Discussion (hereinafter referred to as “R/D”) and the Project Design Matrix (hereinafter referred to as “PDM”).
- (2) To evaluate the activities and achievement in terms of five evaluation criteria, namely Relevance, Effectiveness, Efficiency, Impact and Sustainability
- (3) To conclude whether the Project will be able to realize the outputs, to achieve the purpose and to clarify issues and their countermeasures for the remaining period
- (4) To share a common understanding among stakeholders regarding recommendations for further improvements of the Project and the lessons that can be applied to other similar ongoing and future JICA projects

### 1.2 Methodology of the Terminal Evaluation

The Project was jointly reviewed in a collaborative manner between the concerned authorities of the Iranian side and the Japanese side. A series of questionnaires and interviews are prepared for different groups of stakeholders. For the Terminal Evaluation, the Five Evaluation Criteria was applied. The Five Evaluation Criteria is related to PDM Ver.2 as shown in the following table.

**Relationship between PDM and Five Evaluation Criteria**

	Relevance	Effectiveness	Efficiency	Impact	Sustainability
Overall Goal					
Project Purpose					
Outputs					
Inputs					

### 1.3 Members of the Team

No.	Name	Title / Field	Occupation
1	Mr. Nobuyuki KONISHI	Leader	Director Technical and Higher Education Division, Human Development Department, JICA
2	Mr. Toshio OSA	Vocational Training	Advisor Kyoto Center Employment and Human Resources Development Organization of Japan
3	Mr. Kenichiro KOMATSU	Cooperation Planning	Associate Expert Technical and Higher Education Division, Human Development Department, JICA
4	Ms. Kinuko MITANI	Evaluation Analysis	Consultant IC Net Limited

#### 1.4 Schedule of the Japanese Team

See attached ANNEX I

#### 1.5 Major Interviewees by the Japanese Team

See attached ANNEX II

### 2. Project Performances and Implementation Process

Achievement of the Project was measured in terms of inputs, activities, outputs and project purpose, all of which were based on the Project Design Matrix (PDM) Ver.2. Narrative summary of PDM Ver.2 is shown below.

#### Narrative Summary of PDM Ver.2 agreed in October 2010

Overall Goal	The CBT approach becomes the basis of the training structure of TVTO*.
Project Purpose	TVTO's training management cycle is improved.
Output 1	TVTO is able to assess the training needs in labor market more efficiently.
Output 2	TVTO develops, reviews and updates the training course standard and curriculum based on the industry training requirement.
Output 3	TVTO improves its monitoring and evaluation system.
Output 4	TVTO develops a training improvement plan based on the review of the pilot training course.

\* Technical Vocational and Training Organization (hereinafter referred to as "TVTO")

#### 2.1 Input

##### 2.1.1 Japanese Contribution

###### 1) Dispatch of experts

A total of 9 experts have been assigned by November 2010, namely Chief Advisor, Team Leader, Deputy Team Leader/Vocational Training Management expert I, Vocational Training Management expert II, Training Needs Assessment and Analysis expert, Training Standard and Curriculum expert, Training Monitoring and Evaluation expert.

###### 2) Provision of equipment and facilities

The Project procured office equipments such as printers, computers and copy machine. They are located at the JICA Project Office at ITC until the end of the Project. After the termination of the Project, they will be handed over to the Iranian side according to the decision made by the Iranian side at the time of the project termination.

###### 3) Training for counterparts

A total of 8 persons participated in the study tour in Japan arranged under the counterpart training scheme of the Project. Four persons benefited the training "Vocational Training Management" from

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August to September 2007, and other 4 persons benefited the same training from June to July 2008.

#### 4) National staff members for the Project

A total of 7 staff members are hired by the Project. They are project coordinator, Industrial Reference Group (hereinafter refer to as "IRG") coordinator, 3 technical interpreters and 2 assistants.

### 2.1.2 Iranian Contribution

#### 1) Assignment of counterpart personnel

At the beginning of the Project, counterpart personnel were appointed as planned. However, during the implementation of the Project, some counterpart personnel were changed due to internal transfer. The present counterpart personnel are shown in ANNEX III.

#### 2) Land and facilities for the project

Provision of working space, facilities, basic furniture and equipments at TVTO, TVTC No. 4 and Instructors Training Center (hereinafter refer to as "ITC") for the experts from the Japanese side have been provided appropriately. Necessary equipments for the pilot course were procured by TVTO.

#### 3) Local expenses

Administrative and operational costs for electricity, water supply, telephone and furniture have been borne by the Iranian side.

### 2.2 Achievements of the Project

The results of the Project are highlighted below.

	Results
Overall Goal	It is expected that CBT manual in Persian will be produced by TVTO and CBT training course for representatives of each TVTC will be conducted by TVTO through the use of the outputs of the Project.
Project Purpose	The Project Purpose is going to be achieved by the end of the Project. JICA Project Team is expected to complete the development of the draft final version of "Manual on CBT" and TVTO training improvement plan by the end of the Project.
Output 1	<p>The Project planned and conducted needs assessment to prepare the 2 pilot training courses. Based on the discussion and agreement between TVTO and JICA Project Team, "Automotive Repair and Service Sector" was selected as the focus area of the 1<sup>st</sup> pilot training course. To apply lessons learned and experience that JICA Project Team acquired when conducting the 1<sup>st</sup> pilot training course, the Project selected the same area of focus for the 2<sup>nd</sup> pilot training course. Both TVTO and IRG agreed to the area of focus.</p> <p>The 3 instructors who are part of the Project have gained practical know-how and knowledge on needs assessment during the project implementation. The</p>

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know-how on needs assessment is illustrated in “Manual on CBT”, which is being drafted by the Project.

Output 2

Based on the technical area for the pilot training courses selected according to the needs of the Iranian side, the Project developed unit of competencies and curriculum. Using the developed curriculum and teaching materials exclusively for the pilot training courses, the pilot training courses were conducted twice.

The 3 instructors worked closely with JICA Project Team in preparing and conducting the courses. The necessary steps for the programming and implementation of training courses are captured in “Manual on CBT”, which is under development by the Project.

Output 3

Monitoring and evaluation tools were developed for the pilot training courses. Under the guidance of JICA Project Team, the developed tools were practiced by the Iranian side. During the pilot training courses, the 3 instructors were directly involved in daily monitoring of the courses/trainees as well as evaluation of the courses/trainees, which were new responsibility to them.

The developed monitoring and evaluation tools are included in “Manual on CBT”, which is under production by the Project.

Output 4

The experience and lessons learned through the Project are shared among the concerned Project members. Such experience and lessons learned are highlighted in the reports produced/will be produced by the Project by the end of the Project. A training management improvement plan will be part of the final project report, which is under preparation by the Project.

The reports already produced have been reviewed by the Iranian side. The first draft of the proposed training management improvement plan has been shared with the Iranian side.

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The documents, reports, manual and other related literature produced and submitted from the Project to the Project Manager in the course of the Project are shown in ANNEX V.

## **2.3 Implementation Process of the Project**

### **2.3.1 Implementation of Activities**

The Project involves the management of TVTO and ITC and 3 instructors in its implementation at the time of the Terminal Evaluation. Despite the frequent change in TVTO management, change in the project sites, reduced number of counterparts, JICA Project Team carried out the planned activities as scheduled for the most part.

ITC and IRG are playing critical roles in the Project. ITC provided timely and relevant guidance and assistance in preparing and conducting the 2<sup>nd</sup> pilot training course despite the time constraints that the Project overcome. IRG made extra efforts to improve communication and exchange of ideas/technology between TVTO and industries. In addition, IRG members hosted the trainees of the



pilot training courses to provide on the job training opportunities which were called Industrial Attachment in the Project.

### **2.3.2 Project management**

The Project has been managed jointly by the Iranian side and the Japanese side. All concerned committees and persons from the Joint Steering Committee, IRG, instructors, and experts to support staff members are held responsible to perform the agreed/given roles and responsibilities until the end of the Project in cooperative and effective manners.

It would have been better if the project management structure from the Iranian side had been maintained at minimum change in personnel throughout the project period. It became very challenging for JICA Project Team to institutionalize the technology transferred and apply the outputs produced by the Project in the course of the project implementation.

Supervision of the experts' presence (i.e., the time they arrive and the time they leave) is necessary.

## **3. Modification of the Overall Goal**

The Overall Goal "The National Vocational Qualification in labor force is improved" is changed to "The CBT approach becomes the basis of the training structure of TVTO".

## **4. Results of Terminal Evaluation**

### **4.1 Relevance**

Relevance of the Project is high.

The Japanese side confirmed to continue its assistance for projects that will contribute in increasing employment opportunities in Iran. Similarly, TVTO explained that not only the achievement of the project purpose will be a contributing factor to assess the improvement of the TVT sector, which is responsible of TVTO.

### **4.2 Effectiveness**

Effectiveness of the Project is high to some extent.

Despite the fact the Project faced many challenges such as the frequent change in TVTO management and change in the Project site, JICA Project Team accommodated the changes in a flexible manner, and implemented the Project as per the planned schedule for the most part. The results of the Project highlighted in page 4 and 5 prove that the project purpose is going to be achieved by the end of the

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*[Signature]*

Project.

### **4.3 Efficiency**

Efficiency of the Project is average.

Both Iranian and Japanese sides provided inputs as per the agreed terms for the Project for the most part. The expected outputs are going to be delivered before the end of the Project despite the fact that the ratio between the inputs and outputs of the Project changed when compared at the beginning of the Project and the time of the Terminal Evaluation. The following factors hindered the efforts to improve the productivity and appropriateness of the Project:

- The number of counterpart personnel availed to the Project was reduced.
- Project management structure was changed a few times.
- The initial project site was not appropriate.

### **4.4 Impact**

The Project is expected to have a positive impact, while no negative impact is expected.


In 3 to 5 years after the end of the Project, the national vocational qualification in labor force is expected to be increased, which is the overall goal of the Project. The outputs of the Project are designed to contribute in the achievement of the overall goal. Examined training management cycle, training management plan and manual on CBT that are under production by the Project shall be made available to all concerned organizations/industries/persons in the TVT sector in Iran in order to meet the required needs to achieve the overall goal in a timely manner.

TVTO is expected to secure the following conditions in order to increase the probability of the achievement of the overall goal. The overall goal is achieved without the direct assistance of the Japanese side:

- The ongoing reform of the TVT sector in Iran is completed in a timely manner.
- The current national vocational qualification/standards are modified accordingly, if CBT approach is approved as the national training approach.
- More instructors in TVT sector in Iran are appropriately trained on CBT application
- IRG model established in the Project is extended to other industries, as needed.

### **4.5 Sustainability**

Some measure in terms of organizational/policy and technical aspects of the Iranian side have to be taken from now on to increase sustainability of the Project. Until the project termination, both sides provide the ground for dissemination of the CBT approach training through the 3 instructors trained in the Project.





### 1) Organizational/policy aspect

The Project's sustainability will be heavily depended on the leadership of TVTO to succeed in the proposed reform of the sector. If TVTO does its best to disseminate the CBT approach to all TVTCs, it can play a positive role in its sustainability.

In regard to the IRG's sustainability, it is important to maintain the partnership between TVTO and the automobile industry, which has been enhanced through the Project at the same level if not adjusted level after the end of the Project. IRG is the engine to secure timely and effective upgrading of training techniques and technology required in Iran. A newly appointed IRG coordinator will be a good asset to IRG to maintain and move forward with the activities and exchange in ideas/information/technology between the TVTO and concerned industries. However such coordinator shall be on board before the end of the Project to secure the project's sustainability. TVOT suggests that JICA will extend its support, as/when required.

### 2) Financial aspect

The Iranian side has been providing sufficient financial assistance to the Project. Therefore, the Project is expected to come to an end without any financial constrain. Even after the end of the Project, it is expected that the Iranian side will continue to improve the training management cycle with no financial problem. However, costs required to apply the developed training management cycle at all TVTCs and other concerned centers and offices are not estimated in the Project. Thus, it is expected that TVTO will make necessary financial assessment and budgeting for application of the management cycle and training methods at all level.

### 3) Technical aspect

The Project examined the relevancy and effectiveness of CBT approach to the TVTO sector in Iran. The results of the 2 pilot training courses conducted in the Project show that CBT approach is well accepted by TVTO and IRG.

It is only 3 instructors from the Iranian side who have been benefitted directly from the Project in terms of technical transfer, including conducting needs assessment, formation of IRG, application of CBT approach, and other activities carried out by the Project. There are instructors at ITC and other concerned persons from the Iranian side who have been exposed to the Project indirectly by attending workshops and seminars conducted by the Project, TVTO and ITC during the project implementation. In order to secure maximum number of instructors as well as management of the Iranian side shall be the beneficiaries of the Project. Thus, it is expected that TVTO will make necessary arrangements to disseminate the technology transferred from the Japanese side to the Iranian side be availed to those who have not been benefitted directly before and after the end of the Project, so that the technology

will be institutionalized in a systematic way.

## **5. Recommendations**

The following recommendations are made based on the result of the Terminal Evaluation.

### **5.1 Implementation of the remaining units**

It is recommended that the 11 remaining units out of 21 will be implemented by ITC. The list of the units is shown in ANNEX VI. Though the counterparts have an important role as core implementation team members, other trainers at ICT should be involved when conducting the remaining training courses in terms of knowledge sharing/transfer. It is needed to maintain the existing IRG in an appropriate way.

### **5.2 Dissemination of the CBT approach to other fields in ITC**

The outputs of the Project should be shared in ITC. It is necessary to disseminate the CBT approach including organizing and steering IRG function (i.e. appointment of IRG coordinator(s)) to other units in automotive sector and/or different sectors by training trainers in ITC in an applicable way. It is not necessary to apply the CBT approach in all field, however the important thing is how to build a mechanism to grasp the needs from industry in a timely manner in order to make the training meet the demands from industry.

### **5.3 Nationwide dissemination of the CBT approach**

It is recommended to create a mechanism for dissemination of the CBT approach nationally. For example, it will be functional to have a training course on CBT in ITC. Such CBT training course will be conducted for training instructors from each TVTC. In addition, "Recommendation for the Way Forward" proposed by the JICA Project Team that illustrates the roadmap for the next 10 years is suggested to be implemented.

### **5.4 Improvement of communication between CDC and ITC**

It is essential to have a close collaboration between CDC and ITC for development of an effective mechanism to disseminate the CBT approach since the curriculum and training course are two sides of the same coin. It is recommended to keep more practical communication between CDC and IT from a demand-driven point of view.

## **6. Conclusion**

It is concluded that the project purpose is going to be achieved by the end of the Project. As per the Five Evaluation criteria applied by JICA, the progress of the project progress is assessed. The

Relevance, Efficiency, Effectiveness, and Impact of the Project seem to be high to some extent, although Sustainability seems to be medium.

Despite the frequent change in TVTO management, the inappropriate allocation of the initial project sites and the reduction of the counterpart numbers, especially in the last 6 months the affect has been minimized by the effort made by the JICA Project Team and the Iranian side. The capacity of instructors has been improving through the establishment of the IRG and conducting the pilot training courses. ITC has been demonstrating the capacity to deliver the project outputs in an effective manner. It is expected that dissemination of the outputs of the project into the whole country will be realized under Iranian strong ownership.

ANNEX I Schedule of the Terminal Evaluation

ANNEX II List of Major Interviewees

ANNEX III Counterpart Personnel

ANNEX IV Project Design Matrix (PDM) Ver.1

ANNEX V List of Documents, Reports, Manual and Other Related Literature

ANNEX VI List of the 11 Remaining Units





## ANNEX I Schedule of the Terminal Evaluation

30-Oct

Date			Evaluation Team			
			Mr.Nobuyuki Konishi Team Leader	Mr.Kenichiro Komatsu Evaluation Coordination	Mr.Toshio Osa Vocational Training	Ms. Kinuko Mitani Evaluation Analysis
1	22-Oct	Fri			Kansai→Dubai (23:15 - 04:45, EK317)	Narita→Incheon(18:40-21:15, Oct 22, JL959) Incheon→Dubai(23:55-04:25, Oct 22, EK 323)
2	23-Oct	Sat			Dubai → Teheran (07:45 - 09:25, EK971) 13:00 JICA OFFICE	
3	24-Oct	Sun			10:00 Meeting with JICA expert (Ms.Ishimaru) in JICA OFFICE 11:00 Interpreter (Ms.Ghazal) in JICA OFFICE 14:00 Meeting with TVTO (Dr.Ghofrani)	
4	25-Oct	Mon			10:00 Meeting with ITC (Mr.Bajolvand) in Karaj 12:30 Lunch 14:00 : Meeting with 3 instructors in Karaj	
5	26-Oct	Tue			09:00-11:00 Meeting with IRG (Mega Motors)	
6	27-Oct	Wed			09:00-11:00 Meeting with IRG (SAIPA Yadak)	
7	28-Oct	Thu	Narita → Dubai (EK319, 21:40 - 03:30, Oct.29)		Minutes of Meeting drafting Internal Meeting	
8	29-Oct	Fri	Dubai → Teheran (EK971, 07:45 - 9:25)			
				13:30 Internal Meeting in Kowsar Hotel 15:30 Meeting with JICA expert (Ms. Ishimaru) Minutes of Meeting drafting		
9	30-Oct	Sat			09:00 Interview with Trainees 10:00 Courtesy call with Head of ITC (Mr.Teimouri) 13:30 Meeting with TVTO (Dr.Ghofrani) 15:30 Meeting with CDC Director (Dr.Khanifar)	
10	31-Oct	Sun			Minutes of Meeting revision 13:30 Internal Meeting in Kowsar Hotel 17:00 Meeting with TVTO (Gr. Ghofrani)	
11	1-Nov	Mon			09:15 Meeting with TVTO, Signing of the Minutes of Meeting (Signer is Dr. Ghofrani)	
12	2-Nov	Tue			14:00 Embassy of Japan JICA Iran office (tentative) Tehran → Dubai (21:20-23:50, Nov.2,EK978)	
13	3-Nov	Wed	Dubai → Kansai (EK316, 03:00-16:50) Kansai → Haneda (EK6252, 18:05-19:15)		Dubai → Kansai (03:00 - 16:50, EK316)	Dubai→Incheon (03:30-16:30, EK 322) Incheon→Narita (18:40-20:45, JL5206)

## ANNEX II List of Major Interviewees

### JICA Experts

1	Mr. Tatsuya NAGUMO*	Deputy Team Leader/ Vocational Training Management I
2	Mr. Toru ISHIBASHI*	Training Needs Assessment and Analysis
3	Mr. Kunitoshi SAITO*	Training Monitoring & Evaluation
4	Ms. Nakako ISHIMARU	Vocational Training Management II
5	Mr. Roger DEZILWA	Training Standard and Curriculum/ CBT Advisor
6	Mr. Perviz IMANI	JICA Project Support Advisor

\*The Team interviewed these three experts in Japan.

### Technical and Vocational Training Organization (TVTO)

7	Dr. Mohammad Ghofrani	Deputy of Research and Planning/ Project Manager
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### Curriculum Development Center (CDC), TVTO

8	Dr. Hossein Khanifar	Director General
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### Instructors Training Center (ITC), TVTO

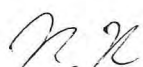
9	Mr. Mohammad Teimoori	Head
10	Mr. Reza Bajoulvand	Deputy of Technical Training
11	Mr. Abbas Karimi	Pedagogy & Entrepreneurship Department
12	Mr. Seyed Mohsen SALIMIAN	Auto Mechanic Trainer
13	Mr. Javad RAFATI	Auto Mechanic Trainer
14	Mr. Ebrahim KHALILZADEH	Auto Mechanic Trainer

### Industries Reference Group (IRG)

15	Mr. M. S. Ghiyasvan	Training manager	Mega Motors
16	Mr. Mohammadi	Trainer	Mega Motors
17	Mr. A. Amiri	Training Manager	SAIPA YADAK
18	Mr. Mohammad Reza Seif	Head of Assessment Dept. for Training/ Training Project Manager	SAIPA YADAK

Trainees of the Second Pilot Training Course

19	Mr. Mohsen Amjadian
20	Mr. Reza Pirali



ANNEX III Counterpart Personnel

Technical and Vocational Training Organization (TVTO)

1	Dr. Mohammad Ghofrani	Deputy of Research and Planning/ Project Manager
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Instructors Training Center (ITC), TVTO

2	Mr. Mohammad Teimoori	Head
3	Mr. Reza Bajoulvand	Deputy of Technical Training
4	Mr. Abbas Karimi	Pedagogy & Entrepreneurship Department
5	Mr. Seyed Mohsen SALIMIAN	Auto Mechanic Trainer
6	Mr. Javad RAFATI	Auto Mechanic Trainer
7	Mr. Ebrahim KHALILZADEH	Auto Mechanic Trainer

Curriculum Development Center (CDC), TVTO

8	Dr. Hossein Khanifar	Director General
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## ANNEX IV Project Design Matrix (PDM)

Project Title : **Project on Strengthening the TVT Management Skills in TVTO**

Ver.2

Period : **Three and a half Years**

Project Site : **Tehran, Karaj**

Period : **July 2007-December 2010**

Target Group : (Direct) **TVTO staff and instructors**

Date : **October 31, 2010**

(Indirect) **TVTO trainees**

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
<b><u>Overall Goal</u></b>			
The CBT approach becomes a basis of the training structure of TVTO.	<ol style="list-style-type: none"> <li>1. CBT manual (final version) in Persian is produced.</li> <li>2. Representatives (core instructors) of each TVTC take CBT training courses conducted by TVTO.</li> </ol>	<ol style="list-style-type: none"> <li>1. Manual in Persian</li> <li>2. Training record in TVTO</li> </ol>	CBT manual is applied to other TVTO regional offices.
<b><u>Project Purpose</u></b>			
TVTO's training management cycle is improved.	<ol style="list-style-type: none"> <li>1. Pilot training course is planned and implemented twice until the end of the project.</li> <li>2. Experiences and lessons from the implementation of pilot training course are analyzed and reported.</li> <li>3. The trainees' satisfaction rate of pilot training is better than that of other courses.</li> <li>4. Based on the experience and lessons from pilot training course, a plan for training management improvement is completed at the end of the Project.</li> </ol>	<ol style="list-style-type: none"> <li>1. Training course plan and the Project progress reports</li> <li>2. Pilot training reports</li> <li>3. Pilot training reports</li> <li>4. Plan for training management improvement</li> </ol>	<ol style="list-style-type: none"> <li>1. The government of the Islamic Republic of Iran does not change TVET policies.</li> <li>2. The government of Japan doesn't change its policy of ODA to Iran drastically.</li> </ol>
<b><u>Outputs</u></b>			
<b><u>Output 1:</u></b> TVTO is able to assess the training needs in labor market more efficiently.	<ol style="list-style-type: none"> <li>1-1. TVTO staffs understand the training management process of Japanese training institutions.</li> <li>1-2. Training needs assessment method is revised.</li> <li>1-3. Training needs is assessed and analyzed.</li> </ol>	<ol style="list-style-type: none"> <li>1-1. Evaluation documents of the training in Japan</li> <li>1-2. Manual of Training Needs Assessment</li> <li>1-3. Assessment reports</li> </ol>	The Project's C/Ps from TVTO remain at TVTO HQ and related office.
<b><u>Output 2:</u></b> TVTO develops, reviews and updates the training course standard and curriculum based on the industry training requirement.	<ol style="list-style-type: none"> <li>2-1. Technical area for pilot training course is selected based on training needs analysis</li> <li>2-2. Training course standard and/or curriculum are developed as a trial.</li> <li>2-3. Pilot training course plans are developed.</li> </ol>	<ol style="list-style-type: none"> <li>2-1. Assessment reports</li> <li>2-2. Revised standard and curriculum</li> <li>2-3. Pilot training course plan</li> </ol>	
<b><u>Output 3:</u></b> TVTO improves its monitoring and evaluation system.	<ol style="list-style-type: none"> <li>3-1. Training monitoring and evaluation manual is developed.</li> <li>3-2. Training monitoring and evaluation is conducted and analyzed.</li> </ol>	<ol style="list-style-type: none"> <li>3-1. Manual of Monitoring and evaluation</li> </ol>	



<p><u>Output 4:</u> TVTO develops a training management improvement plan based on the review of the pilot training course.</p>	<p>4-1.The experience and lessons are summarized as a report. 4-2.A plan for training management improvement is developed.</p>	<p>3-2.Monitoring and evaluation reports 4-1.Pilot training course report 4-2.Plan for training management improvement</p>	
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<u>Activities of the Project</u>	<u>Inputs</u>	<u>Preconditions</u>
<p><b>Output 1</b> Activity 1-1: To develop needs assessment study plan for pilot training course Activity 1-2: To establish working group with industry Activity 1-3: To conduct the training needs assessment study Activity 1-4: To select the training course to be revised for pilot training implementation Activity 1-5: To apply the pilot training needs assessment study to other training course</p> <p><b>Output 2</b> Activity 2-1: To review the present system of standard and curriculum development and revision Activity 2-2: To revise a standard and a curriculum for a pilot training course Activity 2-3: To design a pilot course Activity 2-4: To develop guidelines for training materials Activity 2-5: To prepare the necessary equipment for the pilot course Activity 2-6: To conduct instructor training for pilot course Activity 2-7: To implement a pilot course Activity 2-8: To identify the problems of a pilot course and reflect it in the revised standard and curriculum</p> <p><b>Output 3</b> Activity 3-1: To plan training monitoring and evaluation Activity 3-2: To conduct the training course evaluation Activity 3-3: To conduct the training course monitoring</p>	<p><u>Japanese Side:</u> 1. Dispatch of Japanese experts 2. Provision of equipment 3. Training of counterpart personnel in Japan 4. Supplementary budget for local expenditure</p> <p><u>Iranian Side :</u> 1. Counterpart personnel - Principal Advisor / Head of the Japan Desk - Deputy of Technical and Training Affairs - Deputy of Research and Development - Deputy of Administration and Financial - Deputy of Research and Development from Instructor Training Centre (ITC) - Executive Director of Training and Implementation - Senior staff(s) from ITC - Senior staff (s) from Pilot Regional Office 2. Administrative staff - Secretaries - Translator - Drivers - Accountant 3. Land, buildings and facilities Offices / work space for Japanese experts in TVTO Headquarters 4. Allocation of budget Expenses for the implementation of the pilot training course(s), salaries and other allowances for the Iranian staff</p>	<p>To confirm that TVTO will not be privatized.</p>

**Output 4**

Activity 4-1: To review the pilot training course

Activity 4-2: To summarize the experience and lessons of the pilot training course

Activity 4-3: To develop a plan of training management improvement plan

*M. N.*

*W.*

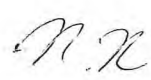
ANNEX V List of Documents, Reports, Manual and Other Related Literature

List of Administrative Reports

No	Title	Submission Date
1	Inception Report	December 2008
2	First Progress Report	February 2009
3	Annual Final Report (1st Year)	March 2009
4	Second Progress Report	September 2009
5	Annual Final Report (2nd Year)	March 2010
6	Third Progress Report	June 2010
7	Annual Final Report (3rd Year) and Project Completion Report	December 2010

List of Technical Output

No	Title	Status (as of July 2010)
1	Induction Program for Developing and Delivering a Competency Based Curriculum: Overview	Finalized
2	Report on Interview Survey to Define Competency Standard for the First Cycle Pilot Training Course	Finalized
3	Report on Interview Survey to Define Competency Standard for the Second Cycle Pilot Training Course	Finalized
4	Manual on Competency Standard Development	Version 2
5	Manual on CBT Delivery	Version 1
6	Manual on Monitoring and Evaluation	Version 1
7	Workbooks for the 1 <sup>st</sup> pilot course	Finalized
8	Workbooks for the 2 <sup>nd</sup> pilot course	Processing

ANNEX VI List of the 11 Remaining Units

10 out of 21 units have been done by the 2<sup>nd</sup> pilot training course and 11 units are remained as shown below.

No	Unit Code	Unit Title	Status
1	AURC251356A	Read in the workplace	Done
2	AURC270103A	Apply safe working practices	Done
3	AURT270278A	Use and maintain workplace tooling and equipment	Done
4	AURT125667A	Use and maintain basic measuring equipment	
5	AURC272003A	Apply environmental regulations and best practice in a workplace or business	
6	AURT217665A	Remove, fit and inspect wheel assemblies	Done
7	AURE218708A	Carry out repairs to single electrical circuits	Done
8	AURE218676A	Test, service and charge batteries	Done
9	AURT202170A	Inspect and service cooling systems	
10	AURT215170A	Inspect and service steering systems	Done
11	AURT216170A	Inspect and service suspension systems	
12	AURT210170A	Inspect and service braking systems	Done
13	AURT306170A	Inspect, service and/or repair clutch assemblies and associated operating system components	
14	AURT206670A	Inspect and service transmissions (manual)	
15	AURT207170A	Inspect and service transmissions (automatic)	
16	AURT201170A	Inspect and service engines	Done
17	AURT203170A	Inspect and service petrol fuel systems	Done
18	AURT204670A	Inspect and service emission control systems	
19	AURT213170A	Service final drive (driveline)	
20	AURT212670A	Service final drive assemblies	
21	AURT200108A	Carry out servicing operations	

*gr*

*M. K*

**Appendix H:**

**Memorandum of Understanding (MOU) on 20th June**

**2010**



**Memorandum of Understanding (MOU) Between  
Technical & Vocational Training Organization (TVTO)**

**and**

**The Japan International Cooperation Agency (JICA) Project Team**


**for**

**The Project for Strengthening the TVT Management Skills in TVTO**

This MOU was made between the Technical & Vocational Training Organization (TVTO), Instructor Training Center (ITC) and the JICA Project Team (JPT) on the 20<sup>th</sup> of June 2010 at TVTO, Teheran.

  
\_\_\_\_\_

Dr. Ghofrani Mohammad  
Deputy of Research and Planning, TVTO

  
\_\_\_\_\_

for Mr. Yuichiro MOTOMURA

Team Leader, JICA Project Team

## **FACTS**

- (A) TVTC No. 4 was selected as a venue for the 1<sup>st</sup> and 2<sup>nd</sup> Pilot Training Courses of the Project by Tehran Provincial Office of TVTO and authorized by TVTO on February 2009.
- (B) It was confirmed at the Joint Coordinating Committee meeting on February 2010 that the 2<sup>nd</sup> pilot training course would be implemented at TVTC No.4.
- (C) TVTO, however, proposed to change the venue for the 2<sup>nd</sup> pilot training course from TVTC No.4 to ITC on May 2010 for the following reasons:
- ✓ In view of sustainability of the Project, ITC would be more appropriate than TVTC No.4 in implementing the 2<sup>nd</sup> pilot training course, because of ITC's function as the instructor training centre with more capacity than TVTC No.4 in promoting and expanding the CBT system in the TVT sector.
  - ✓ ITC is much better equipped than TVTC No.4, not only for training equipment but also for provision of administrative and logistical facilities. TVTO could therefore implement the 2<sup>nd</sup> pilot training course more effectively at ITC
- (D) In consideration of the above-mentioned advantages, JPT, in case of mutual agreement on the following conditions, agrees to implement the 2<sup>nd</sup> pilot training course at ITC.

## **IMPLEMENTATION STRUCTURE OF TVTO**

The Deputy of Research and Planning will be responsible for overall implementation of the Project as a Project Manager.

Head of ITC will be responsible as a Technical Supervisor.

## **REARRANGEMENT of THE 2<sup>nd</sup> PILOT TRAINING COURSE**

TVTO agrees that the number of units of competency to be delivered in the 2<sup>nd</sup> pilot training course should be reduced because:



- 1) the completion date of the 2nd pilot training course has to remain unchanged (the completion date is 15 September 2010);
- 2) additional logistics for relocation will cause a significant delay in preparation; and
- 3) commuting to and from Karaj will reduce the effective working hours of the JPT

### **COUNTERPARTS**

TVTO and ITC shall:

- ✓ continue to assign all of the current counterpart members on a full-time basis during the entire Project period.
- ✓ assign 2-4 new full-time counterpart members from the automotive training sector in Iran to participate in the Project within three (3) days after this agreement is signed.

### **LOGISTICS**

ITC shall:

- ✓ provide adequate office space for all Project staff (7 JICA Experts, 3 National Staffs of the Project and CPs) at ITC for the duration of the Project
- ✓ allow full access by JPT members to the automotive workshop for the entire Project period
- ✓ provide support in recruiting trainees for the pilot course
- ✓ provide a project coordinator to the Project
- ✓ provide lunch for everyone participating in the Project, including trainees for the duration of the pilot course
- ✓ provide fully functional Internet facility at all times.

TVTO and ITC shall:





- ✓ provide a car for JICA Project Team staff from TVTO to Karaj and payment for transport for Iranian CPs from TVTO to Karaj.

TVTO shall:

- ✓ provide interpreter for JPT when need arises at TVTO, since interpreter of JPT will be transferred to ITC and JPT will have no interpreter at TVTO.
- ✓ Arrange regular meeting for JPT with the Project Manager at TVTO twice a month.

#### **INDUSTRY REFERENCE GROUP (IRG)**

TVTO shall:

- ✓ be responsible for organizing IRG regularly in consultation with JPT.

TVTO and ITC shall:

- ✓ assign a coordinator of IRG for organizing IRG regularly during and after the Project, in consultation with JPT.
- ✓ support the coordinator to maintain involvement of IRG members in the delivery of the pilot training course, including industry attachment.
- ✓ support the coordinator for arranging industry attachment for the trainees in terms of logistics and finance.

#### **CBT WORKING COMMITTEE (CWC)**

TVTO and ITC shall:

- ✓ form the CWC by 20<sup>th</sup> June 2010, which is described in the attachment.
- ✓ operate the CWC as described in the attachment.



## **Attachment: CBT Working Committee (CWC)**

### **Mission of the Committee**

Develop a plan to sustain the pilot program and to extend the CBT approach to the other industry sectors.

### **Activities** should include:

- ✓ continuation of the pilot automotive course in order for the selected trainees to obtain a complete Service Mechanic Certificate (equivalent to Australia Certificate II level)
- ✓ extension of the CBT approach to automotive training to include higher certificate levels in the future.
- ✓ communication of information to key personnel in other sectors of training in TVTO about lessons learned through implementation of the Pilot Courses.
- ✓ develop a plan to extend the CBT approach in TVT throughout Iran.

### **Proposed Composition of the CBT Working Committee**

It is important that Dr Ghofrani makes the final selection of the Committee members.

- ✓ A Chairman (1) : Deputy of Research and Planning of TVTO, Head of ITC or representative of them
- ✓ Secretary: (1) from TVTO or ITC: To arrange meetings and keep records.
- ✓ Members
  - One from 1 IRG member
  - One from current counterparts
  - One from director or manager level of department of research and planning
  - One from director or manager level of CDC
  - One from director or manager level of ITC



✓ Additional Members: (2)

Throughout the duration of the JICA project, the JICA Project Team members shall participate in Working Committee meetings

The Chairperson should be responsible for development of a working plan to extend the CBT approach to other industry sectors.

**Frequency of CBT Working Committee Meetings**

Every week during the initial stage.

A handwritten signature in blue ink, appearing to read "JICA K.S.", is located in the bottom right corner of the page.

**Appendix I:**

**List of Equipment Provided**

**調査用資機材等管理台帳 (兼供用・処理台帳)**  
**Equipment Administration for the Survey/Expert/Volunteer/Others**

プロジェクト/専門家/ボランティア/その他 Project/Expert/Volunteer/Others Name		イラン国 Project for Strengthening the TVT Management Skills in TVTO (JOCV,SV) ボランティア ( ) その他 ( )			プロジェクト/専門家/ボランティア No. Project/Expert/Volunteer/Others No.		No.		予算科目 Budget Subject					
相手国受入機関 Counterpart Organization		Technical and Vocational Training Organization (TVTO)			JICA機材管理担当部署/事務所 Department/Section/office in Charge									
派遣/実施期間 Dispatching/Cooperation Period		2008/11/26 ~ 2010/12/09 D/M/Y~D/M/Y			プロジェクト (調査) 実施コンサルタント名 Consultant Name		株式会社 バデコ							
取得年月日 Date of Registration in JICA Office D/M/Y		資機材名 Description/Name of Equipment/Goods	仕様・規格 Specification・Standard	数量 Quantity	金額 (単価) (円・外貨) Unit Price (Yen/Foreign Currency)	購入先 Provider	供用者 User	供用後処理 Condition after Cooperation of Survey/Technical 譲渡 返納 その他 決裁No. (年月日) Transfer Return Others Approval Document No. Date (D/M/Y)			譲渡・返納 年月日 Transfer・Return Date D/M/Y	譲渡先 Receiver	受領書提出 年月日 Receipt Date D/M/Y	備考 Reference
10/1/2009		Laptop computer	TOSHIBA/TECRA	1	IRR 12,570,000	PARSEH	TVTO				30/11/2010			
11/1/2009		Projector	TOSHIBA TLP-X3000	1	IRR 24,950,000	APADANA	TVTO				30/11/2010			
11/1/2009		Projector screen	Tripod Projector Screen (SCOPE)	1	IRR 2,500,000	APADANA	TVTO				30/11/2010			
17/2/2009		Cabinet		5	IRR 1,285,440		TVTO				30/11/2010			
2/3/2009		IC Recorder	Olympus WS-331M	3	IRR 2,400,000	Smart	TVTO				30/11/2010			
2/3/2009		Laptop computer	TOSHIBA/TECRA	2	IRR 12,570,000	PARSEH	TVTO				30/11/2010			
9/3/2009		Laser Printer	HP LaserJet P2015d + Network card	1	IRR 6,330,000	Iran HP	TVTO				30/11/2010			
8/3/2009		Photocopy Machine	Canon IR-2022	1	IRR 35,070,000		TVTO				30/11/2010			
28/8/2010		Laser Printer	HP M2727 nf	1	IRR 7,000,000		TVTO				30/11/2010			

(注) 1 在外事務所及び在外事務所又は駐在員を置かない国においては本部事業部用 (物品管理役、会計役、分任物品管理役用)  
 2 取得価額 (総額) 2万円相当以上の調査用資機材等 (調査用資機材、携行機材) について、現地調達分、本邦購送分、コンサルタント契約購入分全ての物品を登記する。  
 金額は、邦貨 (円) 又は現地調達した際の外貨 (US\$等、現地通貨) を登記する。  
 3 調査団又は専門家、ボランティアなどの技術協力等ごとに別葉とする。 (Make Sheet every Study/Technical cooperation of Expert/Volunteer etc one by one) (一枚に収まらない場合は複数枚に記載する。)  
 (規格 A 4 版 : A 4 Size)

**Appendix J:**

**List of Books Purchased or Collected**

**List of Books Purchased or Collected**

December 2010

Area	Iran	Project Title	Project for Strengthening the Technical and Vocational Training Management Skills in TVTO	Type	Technical Assistance	Division	HDD
Country	IR Iran	Organization	Technical Vocational Training Organization	Duration	From November 2008 to December 2010		

No.	Title of Book/Document	Format (Language)	Kind	Publisher
	Annual Statistic Report 2007/2008 with Training Plan 2008	Book(F)	Collected	TVTO
	Annual Statistic Report 2005/2006 with Training plan 2006	Book(F)	Collected	TVTO
	Annual Statistic Report 2003/2004 (Training Plan 2003)	Book(F)	Collected	TVTO
	Progress Report on Project on Strengthening Technical and Vocational Training Management Skills in TVTO	Report (E)	Collected	JICA
	Standards List (translation by ILO)	Data(E)	Collected	ILO
	Bylaws of Establishment and Management of the private technical vocational institution (Translation by JICA)	Data(E)	Collected	TVTO
	Manual of Skill Assessment and Evaluation (translation by JICA)	Data(E)	Collected	TVTO
	The Organization's New System of Standard Development of the "Job Standards and Training Standards" (translation by JICA)	Data(E)	Collected	TVTO
	Executive Bylaws of Establishing and Managing Technical and Vocational Training Centers (translation by JICA)	Data(E)	Collected	TVTO
	Training Standard of Automobile Fuel Injection Systems (Mechanics Auto-Mechanics Group) (translation by JICA)	Data(E)	Collected	TVTO
	Training Standard of Ladies Dress Making (Bridal and Evening Dress Group) (translation by JICA)	Data(E)	Collected	TVTO
	Training Standard of Floristry (Agriculture-Gardening/Farming Group) (translation by JICA)	Data(E)	Collected	TVTO

No.	Title of Book/Document	Format (Language)	Kind	Publisher
	Training Standard of Commercial Electrician (Grade 1) (translation by JICA)	Data(E)	Collected	TVTO
	Training Standard of Bricklaying(mason) (Civil Engineering Group) (translation by JICA)	Data(E)	Collected	TVTO
	Certificate for Wooding Cabinet(G-1) (Wooding Industry Group) (translation by JICA)	Data(E)	Collected	TVTO
	Job Analysis Sheet for Wooden Cabinet Maker (Grade-1) (translation by JICA)	Data(E)	Collected	TVTO
	Job Analysis Sheet for Wooden Cabinet Maker (Grade-1)-1(translation by JICA)	Data(E)	Collected	TVTO
	Job Analysis Sheet for Wooden Cabinet Maker (Grade-1)-2(translation by JICA)	Data(E)	Collected	TVTO
	Job Analysis Sheet for Wooden Cabinet Maker (Grade-1)-3(translation by JICA)	Data(E)	Collected	TVTO
	Certificate for Automobile Electricity Repairer(Automobile Mechanic Group) (translation by JICA)	Data(E)	Collected	TVTO
	Job Analysis Sheet for Automobile Electricity Repairer (Grade-1) (translation by JICA)	Data(E)	Collected	TVTO
	Certificate for Ladies Hair Dressing(Health and Safety Group) (translation by JICA)	Data(E)	Collected	TVTO
	Job Analysis Sheet for Ladies' Hair Dressing (Grade-1) (translation by JICA)	Data(E)	Collected	TVTO
	Certificate for Cook (Food Industries Group) (translation by JICA)	Data(E)	Collected	TVTO
	Job Analysis Sheet for Cook (Grade-1) (translation by JICA)	Data(E)	Collected	TVTO
	Training Standard List(translation by JICA)	Data(E)	Collected	TVTO
	Final Report of Advisory Activity(translation by JICA)	Data(E)	Collected	TVTO
	Evaluation Systems in KOPO	Data(E)	Collected	TVTO
	Abstract of Final Report	Data(E)	Collected	TVTO
	Laws and Principles of TVT(abstract) (translation by Project)	Book(F) Data(E)	Collected (Translation)	TVTO
	Main Goals and Responsibilities of TVTO (translation by Project)	Book(F) Data(E)	Collected (Translation)	TVTO
	Workbook (AURT200108A) Carry out servicing operation	Book (E)	Purchased	Vetassess
	Workbook (AURT202170A)/Workbook (AURT202166A) Inspect, service and repair cooling systems	Book (E)	Purchased	Vetassess
	Workbook (AURT203170B) Service petrol fuel systems	Book (E)	Purchased	Vetassess



No.	Title of Book/Document	Format (Language)	Kind	Publisher
	Workbook (AURT203670A) Service diesel fuel injection systems	Book (E)	Purchased	Vetassess
	Workbook (AURT205166A) Repair exhaust system components	Book (E)	Purchased	Vetassess
	Workbook (AURT206670A)/(AURT306666A) Inspect, service and repair transmissions (Manual)	Book (E)	Purchased	Vetassess
	Workbook (AURT207170A)/(AURT307166A) Inspect, service and repair transmissions (Automatic)	Book (E)	Purchased	Vetassess
	Workbook (AURT207170A) Inspect and service transmissions (Automatic)	Book (E)	Purchased	Vetassess
	Workbook (AURT201170A) Inspect and Service engines	Book (E)	Purchased	Vetassess
	Workbook (AURT210170A)/ (AURT310166A) Inspect, service and repair braking systems	Book (E)	Purchased	Vetassess
	Workbook (AURT217668A) Select tyres and rimes for specific applications (Light)/ Workbook (AURT217766A) Remove, inspect, repair and fit tyres and tubes (Light)/ (AURT217606A) Balance wheels and tyres	Book (E)	Purchased	Vetassess
	Workbook (AURE218676A) Test, service and charge batteries	Book (E)	Purchased	Vetassess
	Workbook (AURT212670)/ (AURT313666A) Service and repair final drive assemblies	Book (E)	Purchased	Vetassess
	Workbook (AURT213170A)/ (AURT313166A) Service and repair final drive (Driveline)	Book (E)	Purchased	Vetassess
	Workbook (AURT215170A)/ (AURT315166A) Inspect, service and repair steering systems	Book (E)	Purchased	Vetassess
	Workbook (AURT216170A)/ (AURT316166A) Inspect, service and repair suspension systems	Book (E)	Purchased	Vetassess
	Workbook (AURT217665A) Remove, fit and inspect assemblies	Book (E)	Purchased	Vetassess
	Workbook (AURE218708A) Carry out repairs to single electrical units	Book (E)	Purchased	Vetassess
	Workbook (AURV226108A) Carry our pre-repair operations	Book (E)	Purchased	Vetassess
	Workbook (AURT222670A) Service air conditioning systems	Book (E)	Purchased	Vetassess
	Workbook (AURC270103A) Apply safe working practices	Book (E)	Purchased	Vetassess
	Workbook (AURT306170A) Inspect, service and/ or repair clutch assemblies and associated operating system components	Book (E)	Purchased	Vetassess
	Workbook (AURT366108A) Carry out diagnostic procedures	Book (E)	Purchased	Vetassess
	Workbook (AURT271781A) Implement and monitor environmental regulations in the automotive mechanical industry	Book (E)	Purchased	Vetassess

No.	Title of Book/Document	Format (Language)	Kind	Publisher
	(MEM0.5004C) Perform oxy acetylene welding	Book (E)	Purchased	Vetassess
	Workbook (AURT301166A) Repair engines and associated engine components	Book (E)	Purchased	Vetassess
	Workbook (AURE321271A) Service and repair electric drive management systems	Book (E)	Purchased	Vetassess
	Workbook (AURE319166A) Repair charging system	Book (E)	Purchased	Vetassess
	Workbook (AURT204671A)/ ((AURT304666A) Inspect, service and repair and replace emission control systems	Book (E)	Purchased	Vetassess
	Workbook (AURE321171A) Service and repair electronic spark ignition engine management systems	Book (E)	Purchased	Vetassess
	Workbook (AURE320666A) Repair ignition systems	Book (E)	Purchased	Vetassess
	Workbook (AURE321371A) Service and repair electronic body management systems	Book (E)	Purchased	Vetassess
	Workbook (AURE19266A) Repair starting systems	Book (E)	Purchased	Vetassess
	Workbook (AURT270278A) Use and maintain workplace tools and equipment	Book (E)	Purchased	Vetassess
	Workbook (AURT203170B)/ (AYRT303166A) Service and repair petrol fuel systems	Book (E)	Purchased	Vetassess
	Workbook (AURT100308A) Carry out workshop practice activities	Book (E)	Purchased	Vetassess
	Workbook (AURC270688A) Work effectively with others	Book (E)	Purchased	Vetassess
	Workbook (AURT217606A) Balance wheels and tyres	Book (E)	Purchased	Vetassess
	Workbook (MEM05050B) Perform routine gas metal arc welding	Book (E)	Purchased	Vetassess

**Appendix K:**

**Record of Meetings**

## Record of Meeting

Date: 29-November-2008 (15:00-16:00)

Place: Meeting hall at TVTO Deputy Training 5<sup>th</sup> floor

Participants: Stakeholders of JICA-TVTO management skills project (see the attached list)

### **Opening**

Remarks by Dr.Charband (Deputy)

-Comments on resuming the technical cooperation between JICA and TVTO

-Introduction of the participants from TVTO

Congratulatory remarks by Mr.Ashino (Regional representative for JICA Iran) and introduction of JICA Iran staff

Remarks by Mr.Motomura (Chief Advisor for JICA Project Team) and introduction of team members

### **Confirmation of Project Scope**

Dr.Charband started the session by asking whether there occurred any changes except the timing from the TORs shown on the MM (signed April 2007). Chief Advisor explained the project outline consisted of two cycles of pilot training courses, pointing at the schematic chart and referred that he would be delighted to discuss with Dr.Charband in details how they work together with TVTO so that this the schematic chart will be actualized.

Dr.Charband concerned that the chart illustrated well what were described in MM. He invited any questions and requests from the project team for the project start.

### **Setting for the commencement**

Mr.Motomura raised a couple of points as his earliest requests; (1) preparedness of working office for the project team; (2) possibility of holding a guidance seminar for kicking off the project at TVTO, hopefully scheduled on 13<sup>th</sup> or 10<sup>th</sup> December if possible; (3) arrangement of visiting regional training centers and private industries.

Dr.Charband responded that (1) for the working base, one room behind his room is ready; (2) to be discussed in details later; (3) no problem for visit at all so the JICA experts may ask necessary arrangement to Ms.Zamani. Also, for analyzing the conditions of TVTO's performance, some reports such as the one submitted by Mr.Nakano would be useful too.

In addition, he showed his concerns about arrangement of interpreters: he noted considering the volume of the project team (both experts and the counterparts), six for each, it will be necessary at least 4 or 5 interpreters. The qualification of interpreters is also important, so s/he

should have enough knowledge and understanding about TVET related terms. In the past, unfortunately, there happened the conversations with the experts did not go beyond general levels due to the limitation of interpretation.

#### **“Tea-break session”**

Mr.Motomura asked that taking this opportunity of this frank session, it would be appreciated if he would know the preferences of Dr.Charband about potential sector or courses for the pilot implementation. He answered that some ordinary/general type of course will do so that the pilot implementation will give enough impact on the wide ranges of courses. In this regard, industries of home-appliance and industrial machinery might be fine as targeted sectors.

Mr.Ashino asked Dr Charband how has the feedback by the ex-participants been in the JICA’s training in Japan. Dr.Charband said that since the previous phase of cooperation, several officials from TVTO had attended the training in Japan, and the crucial thing was whether the lessons learned there would be applicable for TVTO. He suggested that it would be fruitful if there be a group interview session to discuss these issues frankly as alumni.

He mentioned as far as he understood by the report by his staff returned from the training, the TVET system in Japan is rather different from that in Iran. It seems that the TVET conducted in private sector in Japan are far more vivid and practical. We TVTO also considers the roles as training supplier as public sector, and one of the main roles is to supply the TVET training as basic infrastructure.

Mr. Motomura summarized the background that how TVET in private sector in Japan has developed after World War II, referring its unique employment structure, that is, life-time employment. In life-time employment, where labor force will remain in the company for decades, it is not cost but investment for the companies to shoulder the TVET for their employees. However, in many other societies, including the recent cases in Japan, employees do not remain in the same company until his/her retirement, private sector does not dare to shoulder the TVET cost. Therefore private vocational schools have flourished.

#### **Closing**

Dr.Charband confirmed the tomorrow’s schedule to commence the work. He concluded the session, inviting to an office tour.

END

## Attendants List

<b>TVTO</b>	
Dr.Esfandiyar CHARBAND	Deputy for Training
Mr.Hatamzade	Manager, Executive Training
Mr. Farrokhi Davoud	Vocational Guidance and Consulting Manager (CP for Mr.Ishibashi)
Ms. Zamani Zahra	National Bank Project Secretary (CP for Mr.DeZilwa)
Mr.Asadi Jamshid	Deputy MANAGER(Cp for Mr.SAITO)
Mr.Tarkhan Rezaali	Educational Executive Expert(CP for Mr.NAGUMO & Ishimaru)
Mr.Heros Shabani	Official Interpreter
<b>JICA Iran</b>	
Mr. Makoto ASHINO	Residen Representative
Ms.Natsuko OZAWA	Project Formulation Advisor
Ms.Nayereh MASHAYEKHI	Program Officer
Mr.Majid ALIAKBARIAN	Program Officer
Mr. Vahid	Interpreter
<b>JICA Project Team</b>	
Mr.MOTOMURA Yuichiro	Chief Advisor
Mr. ISHIBASHI Toru	Needs Assessment
Mr. SAITO	Monitoring & Evaluation
Mr. NAGUMO Tatsuya	Training Management
ISHIMARU-Hattori Nakako	Training Management

**Minutes Of Meeting**  
**Between**  
**Technical & Vocational Training Organization (TVTO)**  
**And**  
**The Japan International Cooperation Agency (JICA)**  
**Project Team**  
**For**  
**The Project for Strengthening the TVT Management Skills in TVTO**

The meeting between the Technical & Vocational Training Organization (TVTO) and the JICA Project Team was held at 8:30 on the 8th of December 2008 at a conference room of TVTO, Teheran.

The documents attached contains the minutes of the said meeting, and it is the true record at the meeting and endorsed by both parties.



---

Dr. Esfandiyar Chaharband  
Deputy President, Training Division  
Technical & Vocational Training Organization  
(TVTO)



---

Mr. Toru ISHIBASHI  
Expert on Training Needs Assessment and  
Analysis  
JICA Project Team

## **1.0 Participants:**

Dr. Esfandiyar Chaharband

Mr. Davoud Farrokhi

Ms. Zahra Zamani

Mr. Alishahi

Mr. Toru ISHIBASHI

Mr. Roger DEZILWA

Mr. Kunitoshi SAITO

Mr. Tatsuya NAGUMO

Ms. Nakako ISHIMARU

Mr. Imani Parviz

Ms. Leila Nadimi

Ms. Bahar Hamzhepour

## **2.0 Opening**

Opening remarks by Dr. Chaharband (Deputy President of Training Division)

Welcome by Dr. Chaharband said who was positive that the meeting should be able to resolve a number of issues relating to the JICA Project.

## **3.0 Discussion of Project Framework**

The draft Project Framework developed by the JICA Project Team (attached to this record of meeting) was presented. The main parts of the training management cycle were explained, emphasizing that the Project Team was taking a micro approach to strengthening managerial capability within TVTC.

The following is a summary of the main resolutions:

- Both parties agreed to the proposed Project Framework in principle.
- It was agreed that the main objective is to develop the training management cycle by referring to the Australian CBT system and Japanese management practice.
- The process of training needs analysis proposed in the Framework should be accelerated by showing materials from the Australian CBT modules in the target training areas and getting feedback from industry.
- Australian CBT standards and curriculum are to be adapted and modified as required, in cooperation with the JICA Team, TVTO and ITC.
- Learning strategies and resources in the component relating to curriculum are to be



developed in cooperation between technical training experts of the JICA Team and TVTO staff, with the help of ITC, TVTC and industry. This development will be completed prior to the delivery of the pilot training course.

- The pilot training course will be conducted at a selected TVTC located near or in Teheran.
- All training materials developed and used in the implementation of the pilot project is to be translated by TVTO.
- Interpreters for development of training materials and delivery of training course are to be provided by TVTO.
- TVTO will select candidates of the target TVTC and inform the JICA team by Saturday 13 December for the team to select one TVTC according to criteria proposed in the Framework.

#### **4.0 Closing**

The TVTO side was positive that the meeting had achieved good understanding between both parties. It was agreed that meetings between TVTO and the JICA team should be held regularly, perhaps on a weekly basis.

END

# Project Framework

## Project on Strengthening Technical and Vocational Training Management Skills in TVTO

JICA Project Team

5 December 2008

1

## Issues of the Current TVET Sector

<i>Issue</i>	<i>Approach</i>
1. Relevance to industrial needs	Introduction of CBT approach
2. Managerial capabilities of TVTCs	Development of model training management cycle
3. Information transfer mechanism	Strengthening of vertical linkage by Quality Control Circle (QCC)

2

## Strategy to Upgrade all TVTCs

### In the Project

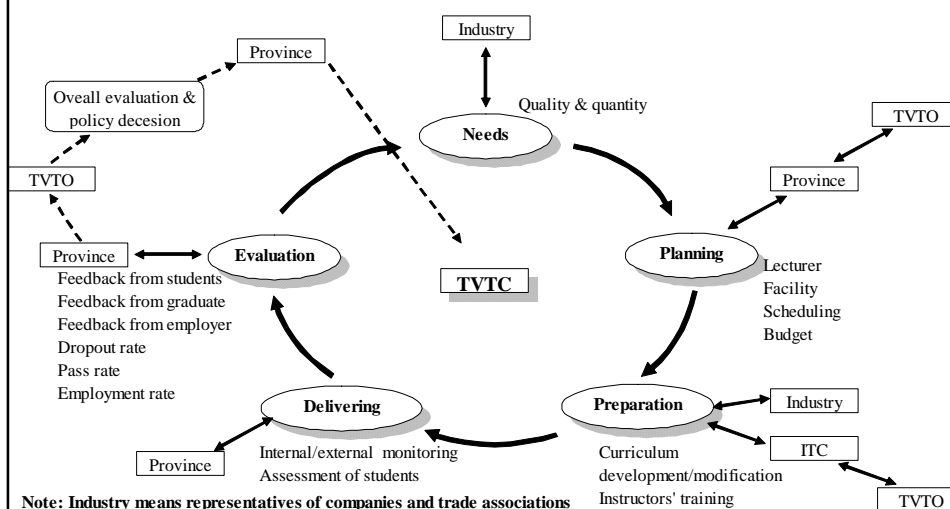
- Develop the training management cycle model in a selected TVTC together with Iranian Counterpart team by implementing two cycles
- Develop a set of manuals for the training management cycle based on experiences and know-how learnt

### After the Project

- Transfer the training management cycle model to all TVTCs by using a set of manuals to strengthen managerial capabilities

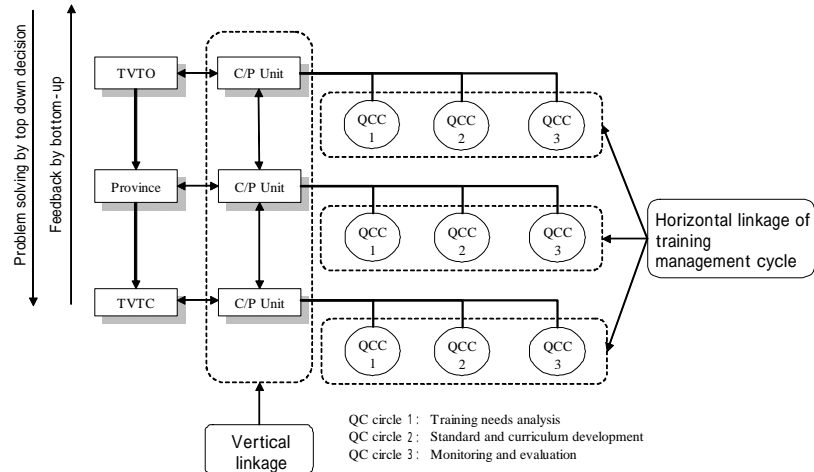
3

## Training Management Cycle



4

## Implementation structure



QCCs include representatives of industries and trade associations as members.

5

## Structure of CBT

(example)

Industrial area	Automotive industry
↓	
Training area	Automotive repair
↓	
Certificate	Grade 2 of automotive repair
↓	
Module	Assembling and disassembling of gear box

Module is a unit of competency with industrial standard.

6

## Structure of module

- |                                       |   |   |
|---------------------------------------|---|---|
| 1. Unit of competency                 | } | Defined by<br>Industry, trade<br>association, TVTO,<br>ITC and TVTC |
| 2. Elements of competency             |   |   |
| 3. Assessment guide                   |   |   |
| 4. Pre-requisite knowledge and skills |   |   |
| 5. Teaching strategy                  | } | Developed by<br>TVTC with help of<br>TVTO and ITC                   |
| 6. Learning resources                 |   |   |

7

## Selection of the target TVTC

### Proposed selection criteria

- Typical TVTC with basic training facilities for lecturers and equipment
- Located near Tehran
- Deliver engineering short courses
- Enthusiastic (Province and TVTC)
- Good relation with the local industry
- English capability (a great advantage)

8

## Process of Training Needs Assessment

*After selection of the target TVTC,*

1. Meeting with representatives of industry and trade association in the region
2. Selection of industrial area
3. Design of training needs analysis
4. Conduct interview survey with managers
5. Conduct questionnaire survey with workers
6. Analyze results to identify training needs in terms of quality and quantity
7. Examine capabilities of the target TVTC
8. Decide training standard and competency for pilot training course

9

## Hypothesis of Training Needs

*Three categories of training needs*

- |                              |  |
|------------------------------|--|
| 1. Employability skills      | Can apply all to courses                           |
| 2. Basic technical skills    | Improvement of existing courses                    |
| 3. Advanced technical skills | Difficulties in preparing lecturers and facilities |

Employability skills include communication in the workplace, working in a team, occupational health and safety, problem solving, cost estimation and entrepreneurship.

10



## Manuals to be developed through the Project

- Training needs analysis and assessment
- Planning for TVTC operation
- General CBT introduction method
- Module development with samples of pilot training course
- Internal and external monitoring methods
- Evaluation methods including feedback from students, graduates and employers, dropout and pass rates and employment rates
- Institutional setting for vertical and horizontal linkages

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Between  
Technical & Vocational Training Organization (TVTO)  
And  
The Japan International Cooperation Agency (JICA)  
Project Team  
For  
The Project for Strengthening the TVT Management Skills in TVTO**

The meeting between the Technical & Vocational Training Organization (TVTO) and the JICA Project Team was held at 14:30 on the 20th of December 2008 at a conference room of TVTO, Teheran.

The documents attached contain the minutes of the said meeting, and it is the true record at the meeting and endorsed by both parties.



---

Esfandiyar Chaharband

Deputy President, Training Division  
Technical & Vocational Training  
Organization (TVTO)



---

Mr. Yuchiro Motomura

Chief Advisor  
JICA Project Team



## 1.0 Participants

### TVTO

Dr. Esfandiyar Chaharband	Deputy for Training
Mr. Hatamzade	Manager
Mr. Davoud Farrokhi	Vocational Guidance and Consulting Manager
Ms. Zahra Zamani	National Bank Project Secretary
Mr. Tarkhan Rezaali	Educational executive Expert
Mr. Heros	International Department
Mr. Falahi	Director General Of TVTO Tehran province
Mr. Ghasemy Abdollah	Manager of training office, TVTO Teheran Province

### JICA Project Team

Mr. MOTOMURA Yuichiro	Chief Advisor
Mr. ISHIBASHI Toru	Training Needs Assessment
Mr. Roger DEZILWA	Standard and Curriculum
Mr. SAITO Kunitoshi	Monitoring & Evaluation
Mr. NAGUMO Tatsuya	Training Management
Ms. ISHIMARU-Hattori Nakako	Training Management
Ms. Bahar Shoghi	Project Interpreter
Ms. Bahar Hamzapour	Assistant Project Officer
Mr. Imani Parviz	National Consultant

### JICA Iran Office

Mr. ASHINO Makoto	Regional Representative for JICA Iran Office
Ms. Nayereh Mashayekhi	Project Officer for JICA Iran Office

## 2.0 Opening

Opening remarks were made by Dr. Chaharband, thanking to JICA Project team members and TVTO officials, who would participate in the cooperative work between JICA team members and TVTO staff.

## 3.0 Discussion of Inception Workshop

Several proposals concerning work plan based on initial assessment of the situation (the handouts are attached to this record of meeting) were presented by JICA Team regarding:

- Review of the 5 TVTC visits;
- Selection of training area and implementation of pilot course;
- Selection criteria of instructors;
- Schedule of the pilot training course; and,
- Schedule of the project implementation up to March 2009.

Reviewing the result of visiting five (5) TVTCs, JICA project team presented considerations regarding the pilot training course. First, the team highlighted the three (3) TVTCs (No.2, No.5, and No.9) as a potential venue for the pilot training course. Then, it was proposed that in the implementation of the pilot course, selected personnel from various levels would work with JICA Team on a full-time basis, followed by some detailed explanations such as the outlines of course, selection criteria and schedules.

The following is a summary of the main points of discussion:

- The model to be introduced and defined by the implementation of the pilot training course is crucial to the improvement of TVTO, and its outcome should be applicable to all TVTCs.
- Employability of trainee should be a built-in part of the pilot course.
- The Australian module should be adapted to Iranian TVET system.
- In order to nominate the ten counterparts as JICA team proposed, TOR for each position is necessary for TVTO.
- A complete table of task schedule, personnel assignment, and other explanatory information on tasks should be prepared so that the whole project can be understood at a glance.
- More details regarding Monitoring and Evaluation are to be presented in the above table.
- There are concerns regarding the period when none of the JICA team members will be present in Iran. The appointed counterparts should not be left without actual work during the period. Dr. Chaharband suggested to advance the work of translation to the period.

#### **4.0 Closing**

Dr. Chaharband concluded the meeting by summarizing the discussion as follows:

1) For the selection of a TVTC, JICA Team should refer to the recommendation by TVTO Tehran Provincial Office<sup>1</sup>.

2) Auto Mechanic course was selected as the subject of the pilot training course. Some modules related to employability should be included in the course.

3) TVTO accepted the proposed implementation structure and requested that TORs for each counterpart personnel to be selected be provided throughout the project.

4) A detailed table combining work plan and personnel assignment schedule should be prepared with sufficient footnotes on task explanation and abbreviations.

5) During the 2.5 months of absence from Iran by JICA experts , any measures are desirable for the appointed counterparts not to be left without work. It was suggested that a partial relocation of translation task to this period .

6) TVTO will convey their comments on the draft Inception Report to JICA team in a couple of days, after they obtain the comments from TVTO Provincial Office.

Attachment:

Power-point presentation “Joint Inception Workshop on Direction of JICA Project”

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<sup>1</sup> After the meeting, Provincial Director recommended No.4 TVTC as the model center.

# **Joint Inception Workshop on Direction of JICA Project**

## **Project on Strengthening Technical and Vocational Training Management Skills in TVTO**

JICA Project Team

20 December 2008

1

## **Today's Agenda**

- Proposals based on rapid assessment by JICA Team on:
  - Review of the 5 TVTC visits and scenarios (Saito)
  - Selection of training Area and implementation of pilot course (Ishibashi)
  - Selection criteria of instructors (Roger)
  - Schedule for pilot training course (Nagumo)
  - Schedule for project implementation up to March 2009 (Ishimaru)
- Q&A and discussion session (Motomura)

2

## Review of the 5 TVTC Visits and Scenarios

	TVTC	Size in courses and no. of instructors	JICA team comment
1 <sup>st</sup> visit	TVTC No.5	Medium size	<b>Maybe good</b> (Principal was absent)
2	TVTC No.4	Medium size	Neutral
3	TVTC No.2	Medium size	<b>Good</b>
4	TVTC No.1	Small size	Neutral
5	TVTC No.9 (Moshirie)	Large size	<b>Good</b>

3

## Selection of Pilot Training Area

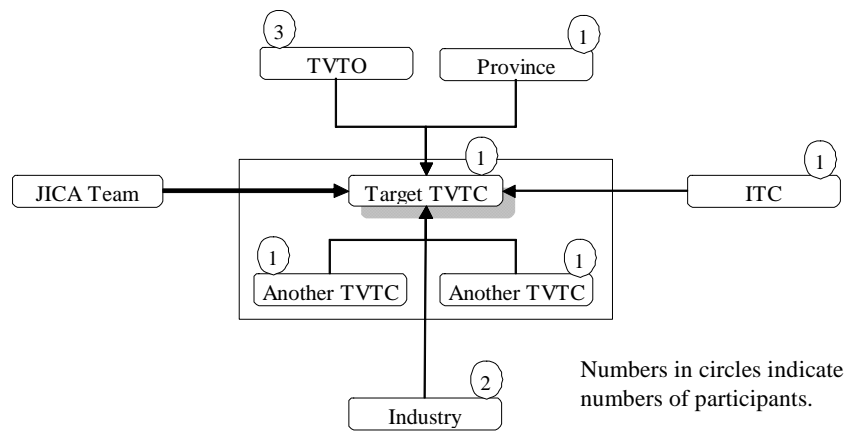
Automotive Technology is proposed because:

- It is the most common and popular training area
- It is delivered by many TVTCs
- There are cooperative relations with industry
- There are continuous training needs
- There is the possibility to recruit appropriate Australian experts

Note: A pilot course will utilize equipment (s) of the selected TVTC, rent from other TVTC/industry or purchase by TVTO.

4

### Implementation structure for pilot training course



Out of the 10 members above, 5 counterpart members work with JICA Team to prepare and deliver the pilot training course on a full-time basis.

5

## Selection Criteria of Instructors

### •Essential

- Enthusiastic in learning new skills & methods
- Sufficient level of auto mechanical practical skills
- Can commute to Selected TVTC and TVTO

### •Desirable

- Basic level of communication in English
- Sufficient level of reading in English

6

## Outline of the Pilot Training Course

Training area:	Auto mechanic
Training period:	2 months
Training time:	8:00 am to 12:00 pm
Lecturing hours:	160 hours (= 4 hours x 5 Days x 8 Weeks)
Nominal teaching hours	320 hours (= 160 hour x 2) (160 hours for self-study)
Averagenominal hours per module:	23 hours/module
No. of module included in 2-month course:	14 module (= 320/23)
No. of module included in pilot course:	6-7 modules (Half of 14 because of the first trial in Iran)

Note: The time for afternoon is used for preparation for the following day.

7

## Schedule: for the Pilot Training Course

	2009												
	1	2	3	4	5	6	7	8	9	10	11	12	
Activities for pilot training course													
Instructors training for CBT in general		■											
Preparation by counterpart			■	■	■	■	■						
Curriculum development						■	■	■	■				
Translation								■	■	■			
Instructors' training										■	■	■	■
Delivering pilot training course										■	■	■	■
Input													
JICA subject expert							■	■	■	■	■	■	■
Counterpart input (full-time basis)		■	■	■	■	■	■	■	■	■	■	■	■

Required full-time counterpart input:

- 2 months from mid January to mid March 2009 for instructors training for CBT in general and others
- 6 months from June to November 2009 for curriculum development, translation and delivery

8

## Schedule:

### overall implementation up to March 2009

	2008	2009		
	12	1	2	3
Development of implementation structure				
Selection of lecturers	■			
Identification of industries	■			
Formation of QCCs (Task Team)		■		
Kick-off meeting			■	
Training needs analysis				
Review of current system of training needs analysis	■			
Preparation of questionnaire	■	■		
Appointment of survey		■		
Implementation of survey		■		
Analysis of survey results			■	
Identification of competencies for pilot training course			■	
Development of <b>Manual for Training Needs Analysis (Draft)</b>			■	■
Standard and curriculum development				
Review of current system of standard and curriculum development			■	
Instructors' training for CBT in general			■	
Development of outline of training package				■
Checking of necessary equipment for pilot training course				■
Monitoring and evaluation				
Review of current system of monitoring and evaluation		■	■	
Review of current management system		■	■	
Development of <b>Manual for Monitoring &amp; Evaluation (Draft)</b>			■	■

## Summary Chart for selecting target center

	<b>Item</b>	<b>First visit (TVTC No. 5)</b>	<b>Second visit (TVTC No. 4)</b>	<b>Third visit (TVTC No. 2)</b>	<b>Fourth visit (TVTC No. 1)</b>	<b>Fifth visit (Moshirie)</b>
1	Size of the center	Medium	Medium	Medium	Small	Big
2	Passing rate (Employment rate)	High (Medium)	Medium (???)		High (Medium)	High (High)
3	Course area (Automobile ?)	13 courses (Yes)	13 courses (Yes)	8 courses (Yes)	7 courses (No)	29 courses (Yes)
4	No. of Instructors years of service	18 15 years	20 (11 permanent) 7 years	16 (11 permanent)	9 (8 permanent) 10 years	51 (50% permanent) 13 years *1 English speaker
5	Facilities and equipments (good for automobile ?)	Medium	Medium	Medium	Fair	Very good.
6	Impression by JICA team	Can't tell	Medium	High	Fair	High
7	Level of center management	(Checked by TVTO)	(Checked by TVTO)	(Checked by TVTO)	(Checked by TVTO)	(Checked by TVTO)
8	Relationship with Provincial Office and TVTO HQ	(Checked by TVTO)	(Checked by TVTO)	(Checked by TVTO)	(Checked by TVTO)	(Checked by TVTO)
9	Relationship with industry	(Checked by TVTO)	(Checked by TVTO)	(Checked by TVTO)	(Checked by TVTO)	(Checked by TVTO)
10	Financial Condition	(Checked by TVTO)	(Checked by TVTO)	(Checked by TVTO)	(Checked by TVTO)	(Checked by TVTO)
<b>JICA Team summary</b>		<b>?? (maybe good)</b>		<b>Good</b>		<b>Good</b>



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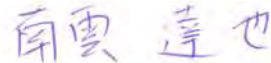
The meeting between the Technical & Vocational Training Organization (TVTO) and the JICA Project Team was held at 10:30 on the 20th of January 2009 at a conference room of TVTO, Teheran.

The documents attached contain the minutes of the said meeting, and it is the true record at the meeting and endorsed by both parties.



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Mr. Esfandiyar Chaharband  
Deputy President, Training Division  
Technical & Vocational Training Organization  
(TVTO)



---

Mr. Tatsuya Nagumo  
Expert on Training Management / Deputy  
Team Leader  
JICA Project Team

## **1.0 Participants**

### **TVTO**

Dr. Esfandiyar Chaharband  
Ms. Zahra Zamani

Deputy for Training  
National Bank Project Secretary

### **JICA Project Team**

Mr. ISHIBASHI Toru  
Mr. NAGUMO Tatsuya  
Mr. Imani Parviz  
Ms. Maryam Akbari,

Training Needs Assessment  
Training Management  
National Consultant  
Interpreter / Translator

## **2.0 Discussion**

Several agenda were discussed by both parties:

### 1) Report on Inception Workshop of Training Needs Survey

The result of the workshop and implementation schedule were explained by the JICA Project Team. Mr. Chaharband suggested to present a guidance of CBT before the implementation of need survey to enhance motivation of counterparts from industry. Both parties agreed to have an introduction session of CBT at the meeting seminar on 28<sup>th</sup> January.

### 2) Status of Inception Report

Both parties confirmed the contents of Inception Report and TVTO agreed that the JICA Project Team will submit the report to JICA officially.

### 3) Study Tour in Japan (using a JICA scheme of counterpart training in Japan)

TVTO suggested canceling the study tour, unless the destination can be changed to Australia.

### 4) A style of Manual

Both parties agreed to make maximum use of figures and tables in manuals to be developed by the project.

### 5) Event Schedule

The tentative schedule of each event was explained by the JICA Project Team and both parties confirmed the schedule.

### 6) Joint Coordinating Committee (JCC) Meeting

TVTO showed their agreement to organize JCC for effective implementation of the project.

Attachment:

- Excel Fine "Event schedule"
- Inception Report (English)
- Inception Report (Farsi)

**Minutes of Meeting  
Between  
Technical & Vocational Training Organization (TVTO)  
And  
The Japan International Cooperation Agency (JICA)  
Project Team  
For  
The Project for Strengthening the TVT Management Skills in TVTO**

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The meeting between the Technical & Vocational Training Organization (TVTO) and the JICA Project Team was held at 10:30 on the 3<sup>rd</sup> of February 2009 at the office of Mr.Chaharband, TVTO, Teheran.

The documents attached contain the minutes of the said meeting, and it is the true record at the meeting and endorsed by both parties.

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Mr. Esfandiyar Chaharband  
Deputy President, Training Division  
Technical & Vocational Training Organization  
(TVTO)

---

Ms. Nakako Hattori-Ishimaru  
Expert on Training Management  
JICA Project Team

## 1.0 Participants

### TVTO

Mr. Esfandiyar Chaharband	Deputy for Training
Ms. Zahra Zamani	National Bank Project Secretary

### JICA Project Team

Mr. ISHIBASHI Toru	Training Needs Assessment
Mr. ISHIMARU-Hattori Nakako	Vocational Training Management
Mr. Roger DeZilwa	Training Standard and Curriculum
Mr. SAITO Kunitoshi	Training Monitoring & Evaluation
Mr. Imani Parviz	National Consultant
Ms. Maryam Akbari,	Technical Interpreter / Translator

## 2.0 Discussion

First, Mr.Chaharband raised questions about the ongoing training needs survey. The major points are summarized as follows:

- the validity of methodology how the project team formulate the questionnaire that are used the ongoing survey;
- the selected list of modules that was used for the interview: whether they are comply with Iranian auto-repair items; to what extent we should rely on the selection by a subject expert in Australia who is supposedly doesn't know about the system in Iranian auto-repairs.

Responding to these points, the team made explanations about the steps of the survey and its methodological background.

Second, Mr.Chaharband expressed his concern as whether the activity currently conducted by the project team is merely focusing on the implementation of some limited modules and lacking the broader perspectives after the project's goal. Also, he mentioned the organization (TVTO) seriously lacks how to conduct need surveys and requested for methodological explanation on what the team is doing (so that he can explain to President of TVTO);

Then, Mr.Chaharband expressed his further requests regarding the needs survey:

- In prior to formulation of questionnaire or interview, one step should be added with a selected area, to compare Australian training package, TVTO curriculum, and what Industry's training.
- Some methodological explanation on what the team is doing (so that he can explain to President of TVTO);
- Manuals is expected to describe how to conduct the process of needs survey, of which methods should be used, what kind of advantage and limitations they contains; and
- The whole training package to be provided, including all the certificates from 1 to 5, (later in the discussion they were confirmed those only related to auto-mobiles.

For continuation, all agreed to have a next meeting, scheduled on Sunday, 8<sup>th</sup> February.

END

**Minutes of Meeting  
Between  
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Project Team  
For  
The Project for Strengthening the TVT Management Skills in TVTO**

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The meeting between the Technical & Vocational Training Organization (TVTO) and the JICA Project Team was held at 9:00 on the 9<sup>th</sup> of February 2009 at the office of Mr.Chaharband, TVTO, Teheran.

The documents attached contain the minutes of the said meeting, and it is the true record at the meeting and endorsed by both parties.

---

Mr. Esfandiyar Chaharband  
Deputy President, Training Division  
Technical & Vocational Training Organization  
(TVTO)

---

Ms. Nakako Hattori-Ishimaru  
Expert on Training Management  
JICA Project Team

## **1. Participants**

### **TVTO**

Mr. Esfandiyar Chaharband  
Ms. Zahra Zamani

Deputy for Training  
National Bank Project Secretary

### **JICA Project Team**

Mr. ISHIBASHI Toru  
Mr. ISHIMARU-Hattori Nakako  
Mr. Roger DeZilwa  
Mr. SAITO Kunitoshi  
Mr. Imani Parviz  
Ms. Maryam Akbari,

Training Needs Assessment  
Vocational Training Management  
Training Standard and Curriculum  
Training Monitoring & Evaluation  
National Consultant  
Technical Interpreter / Translator

## **2. Discussion**

Welcome remarks by Mr.Chaharband and approval of three (3) agendas for this meeting by all the attendants.

### **2-1. Training Needs Survey**

-Structure of Australian Training Package was illustrated. Among of which, it was confirmed to which part of this overall structure will be targeted as the selected units for pilot training course both in electrical and employability.

-The remodeled version of method of Training Needs Survey (or called “confirmation of Competency Units with Industry for Pilot Training Course) were presented by steps from 1 to 7.

-Mr.Chaharband insisted TVTO will form another team in parallel with the on-going needs survey team: this second team will work on the remaining competencies in Light Vehicles of Auto mechanics from all levels of Certificate. His aim is to speed up of institutionalization by letting the future task originally scheduled for the second pilot training cycle.

-Project Experts added the above mentioned task as No.8 for this year. However, they noted that further responsibilities of Project Experts for looking after this second team in the following year should be clarified further in another meeting with Chief Advisor and JICA.

-Participants agreed that the importance of the capacity development of the counterparts throughout the project duration.

### **2-2. CBT Curriculum Development Delivery Induction Workshop**

-Basic concepts toward this 10-day training (participatory style) was acknowledged. Some requests were made such as:

--The workshop should cover points differences/comparison between TVTO’s active training system and Australia;

--The style of training operation should be CBT-wise;

--The certificates should be issued by two (2) organizations (JICA and TVTO for each); and

--Documentation for the training is crucial and should be reported after the training.

### **2-3. Schedule**

-Joint Coordination Committee will be held in March, scheduled in the afternoon of 16<sup>th</sup> March.

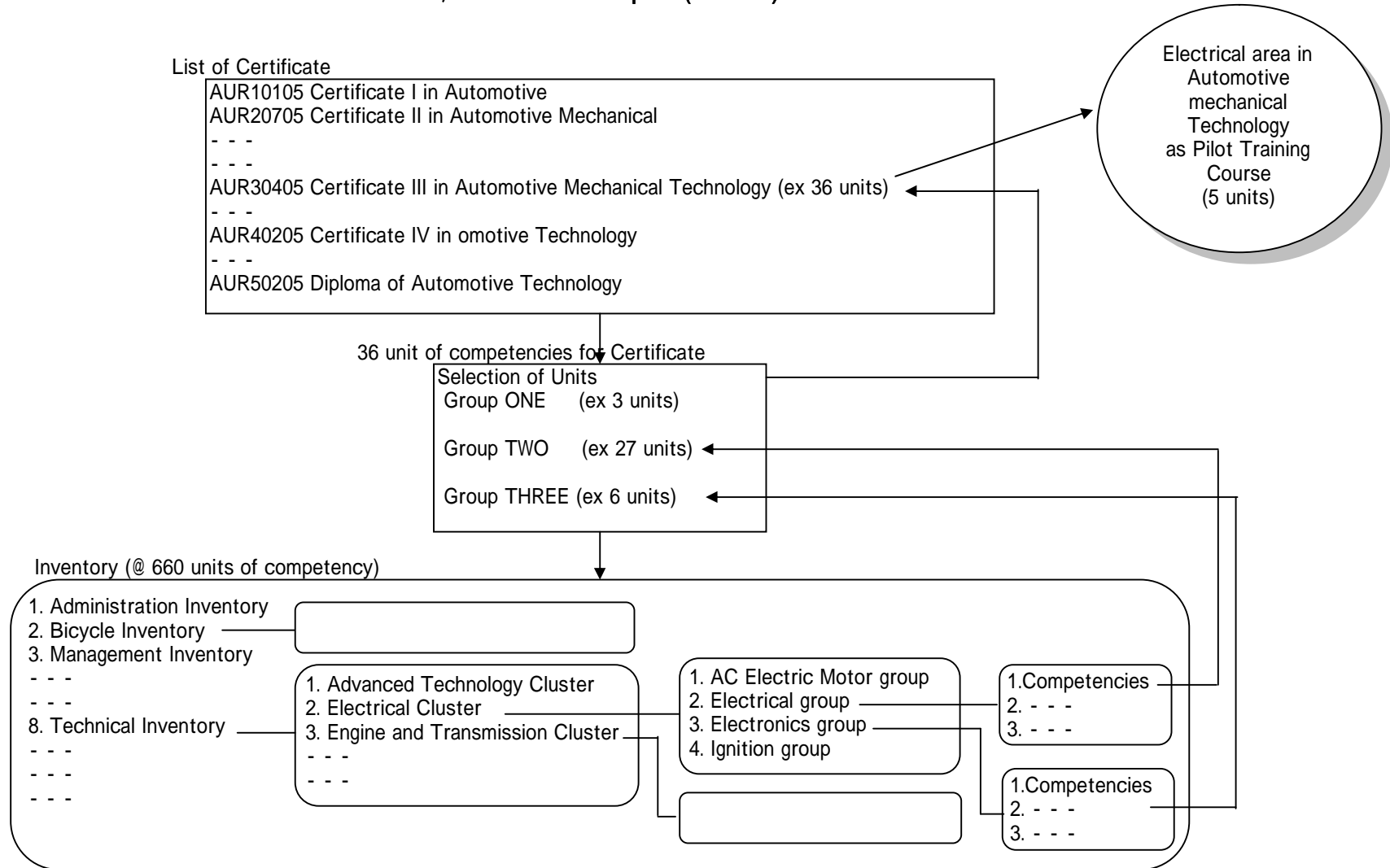
-Both Inception report were acknowledged and Monthly Report (January) were submitted.

END

**Attachment (Handouts for the meeting)**

1. Overall Structure of Australian Training Package
2. Method of Confirming of Competency with Industry for Training Course
3. CBT Curriculum Development & Delivery Induction Workshop Schedule
4. Work Assignment

## Overall Structure of Australian Training Package ex. Automotive Industry Training Package for Retail, Service and Repair (AUR05)





## CBT Curriculum Development & Delivery Induction Workshop

### Terms of Reference

#### 1. Workshop Purpose

The rationale for this workshop is to induct the staff who are participating in the JICA Pilot project in:

- the background of Australian VET reform;
- the process of adoption of a comprehensive CBT approach to vocational education and training in this country and
- key features of CBT curriculum development and delivery that characterise the Australian CBT system.

Additionally, the workshop is intended to provide the Pilot Project counterpart staff with suitable practical experience, to prepare them for participation in the train-the-trainer workshops to be conducted in June-July and the Pilot Training Course to be conducted in October-November.

#### 2. Participants

Participants are to include all counterpart staff who will participate in the the train-the-trainer workshops to be conducted in June-July and the Pilot Training Course to be conducted in October-November. It is intended that the participants will attend all Workshop sessions and complete the prescribed assignment work.

#### 3. Facilitators

The facilitators will be Mr Roger De Zilwa (JICA Project Team), Ms Zamani (TVTO) and Mr Saito (JICA Project Team).

#### 4. Location

*To be confirmed*

#### 5. Duration & Timing

The 10—day induction workshop is intended to commence on 23 February and finish on 10 March. As indicated in the Schedule, the workshops on each day will commence at 9am and conclude at 3pm, with 1 hour break for lunch.

#### 6. Content

The workshop is intended to be a participatory forum in which the 3 main facilitators will present some models and examples, all attendees will be involved in discussions of these models and the participants will complete a *major assignment* which will incorporate some of the strategies and models discussed in the workshop. These major assignments are to be completed in a period of a week and then presented in plenary sessions conducted after the intervening week. The presentation will include a demonstration lesson selected from each participant's assignment.

Topics will include:

- Background and factors leading to national vocational education and training (VET) reform and resultant models of VET management
- CBT approaches in VET curriculum development and delivery with focus on training needs analysis, training course and module development and assessment
- The importance of learning resource production and models of development and distribution of resources
- Training monitoring and evaluation

*(See attached Workshop Schedule)*

CBT Curriculum Development & Delivery Induction Workshop Schedule

Presenters – Mr Roger De Zilwa (JICA Project Team), Ms Zamani (TVTO), Mr Saito (JICA Project Team), Mr Ishibashi (JICA Project Team)

9.00

12

1.00

3.00

Day 1	<ul style="list-style-type: none"> <li>• Pilot Program and Induction Program Objectives</li> <li>• Discussion of Workshop outcomes and major assignment</li> <li>• Vocational Education and Training Reform. Discussion of :             <ul style="list-style-type: none"> <li>▪ Issues relating to TVT (VET) provision</li> <li>▪ Australian experience and issues</li> <li>▪ National reform in Australia and VET organizational structure and responsibilities</li> <li>▪ Discussion of issues related to Iran context</li> </ul> </li> </ul>	Lunch	<ul style="list-style-type: none"> <li>• Competency Based Training (CBT)             <ul style="list-style-type: none"> <li>▪ Definition of CBT</li> </ul> </li> <li>• Explanation of :             <ul style="list-style-type: none"> <li>▪ Types of competency standards</li> <li>▪ Key features of CBT</li> <li>▪ Issues related to application of the CBT approach</li> <li>▪ Qualifications (certification) Credit Matrix</li> </ul> </li> </ul>
Day 2	<ul style="list-style-type: none"> <li>• Identifying Training Needs including:             <ul style="list-style-type: none"> <li>▪ Types of needs analyses and their applications</li> <li>▪ Specific applications and benefits of Australian Needs Analyses &amp; results</li> <li>▪ Discussion of issues arising from recent TNA and methodology in relation to applicability in Iran</li> </ul> </li> </ul>		<ul style="list-style-type: none"> <li>• Application of CBT curriculum development in national TVT reform             <ul style="list-style-type: none"> <li>▪ Training Package concept in framing competency standards</li> <li>▪ The Automotive Training Package</li> <li>▪ Positive and negative aspects related to implementation of the Training Package approach</li> <li>▪ Comparisons between the Training package and current curriculum development approach in Iran</li> </ul> </li> </ul>
Day 3	<ul style="list-style-type: none"> <li>• Developing training modules from competency standards             <ul style="list-style-type: none"> <li>▪ Applicability of a modular approach to training</li> <li>▪ Appropriate formats for designing instruction</li> <li>▪ Customization of formats for applicability to Iran TVT system</li> <li>▪ Certification and accreditation systems</li> </ul> </li> </ul>		<ul style="list-style-type: none"> <li>• Planning process for CBT lesson/session delivery             <ul style="list-style-type: none"> <li>▪ Breaking down information (task analysis)</li> <li>▪ Planning training sessions</li> <li>▪ Structuring training sessions</li> <li>▪ Developing training strategies &amp; methods</li> </ul> </li> </ul>

Day 4	<ul style="list-style-type: none"> <li>• Planning process for CBT continued                             <ul style="list-style-type: none"> <li>▪ Breaking down information (task analysis)</li> <li>▪ Planning training sessions</li> <li>▪ Structuring training sessions</li> <li>▪ Developing training strategies &amp; methods</li> </ul> </li> </ul>		<ul style="list-style-type: none"> <li>• Focus on CBT Assessment                             <ul style="list-style-type: none"> <li>▪ Overview of CBT assessment</li> <li>▪ Role of training organizations in assessment</li> <li>▪ Forms of evidence</li> <li>▪ Assessment tools</li> <li>▪ Assessment validation</li> </ul> </li> </ul>
Day 5	<ul style="list-style-type: none"> <li>• Developing Training Resources                             <ul style="list-style-type: none"> <li>▪ Definition &amp; description of training resources</li> <li>▪ Responsibility for development &amp; production of training resources</li> <li>▪ Models of training resources</li> <li>▪ Development &amp; distribution of resources(issues)</li> </ul> </li> </ul>		<ul style="list-style-type: none"> <li>• Delivering CBT Training                             <ul style="list-style-type: none"> <li>▪ Communication skills</li> <li>▪ Importance of non-verbal communication</li> <li>▪ Questioning techniques</li> <li>▪ Assessing trainees</li> </ul> </li> </ul>
Day 6	<ul style="list-style-type: none"> <li>• Conducting training Evaluation                             <ul style="list-style-type: none"> <li>▪ What is evaluation?</li> <li>▪ Monitoring and keeping records</li> <li>▪ Who, what, and when do you evaluate?</li> <li>▪ Evaluation methods</li> <li>▪ Reporting as a consequence of evaluation</li> </ul> </li> </ul>		<ul style="list-style-type: none"> <li>• Discussions and individual consultations related to developing individual training module and lesson material</li> </ul>
Day 7	<ul style="list-style-type: none"> <li>• Individual preparation of lesson/session related to selected Unit of Competency and training modules</li> </ul>		<ul style="list-style-type: none"> <li>• Individual preparation of lesson/session related to selected Unit of Competency and training modules</li> </ul>
Day 8	<ul style="list-style-type: none"> <li>• Individual preparation of lesson/session related to selected Unit of Competency and training modules</li> </ul>		<ul style="list-style-type: none"> <li>• Individual preparation of lesson/session related to selected Unit of Competency and training modules</li> </ul>
Day 9	<ul style="list-style-type: none"> <li>• Participant presentation of major assignment material and demonstration lesson</li> </ul>		<ul style="list-style-type: none"> <li>• Participant presentation of major assignment material and demonstration lesson</li> </ul>
Day 10	<ul style="list-style-type: none"> <li>• Participant presentation of major assignment material and demonstration lesson</li> </ul>		<ul style="list-style-type: none"> <li>• Induction Program Evaluation and Review                             <ul style="list-style-type: none"> <li>▪ Discussion of issues</li> <li>▪ Finalization of course/module development assignment</li> <li>▪ Participant feedback plenary</li> </ul> </li> </ul>

# **Minutes of Joint Coordinating Committee Meeting Between Technical & Vocational Training Organization (TVTO) And The Japan International Cooperation Agency (JICA) Project Team For The Project for Strengthening the TVT Management Skills in TVTO**

## **1.0 Participants:**

### **TVTO**

Dr. Esfandiyar Chaharband  
Mr. Amir Mir  
Mr. Mohammad Taghi Saberi  
Mr. Davoud Farrokhi  
Mr. Alireza Hatamzadeh  
Ms. Zahra Zamani  
Mr. Forou'i  
Ms. Fereshteh Khorshidi  
Ms. Elham Seifi

### **JICA Project Team**

Mr. Yuichiro MOTOMURA  
Mr. Tatsuya NAGUMO  
Mr. Toru ISHIBASHI  
Mr. Roger DEZILWA  
Mr. Kunitoshi SAITO  
Mr. Parviz Imani  
Mr. Mojtaba Ahmad Khan  
Ms. Maryam Akbari  
Ms. Bahar Hamzehpour

### **JICA**

Mr. Kenichi SHIROUZU  
Ms. Natsuko OZAWA

## **2.0 Opening**

Opening remarks by Mr. Chaharband (Deputy of Training Division)

Welcome by Mr. Chaharband who started by telling the members about the background of the MOU signed in 2007 on strengthening training management cycle, which expected 4 outputs:

1. meeting training needs in the job market;
2. revising the training program based on the need survey of the first output;
3. improvement of monitoring and evaluation of training courses; and
4. developing the final model on improving training management cycle

We both worked together to reach a common Plan of Operation (PO). Two groups are working together so far as planned on the PO. One of them, Iranian group, whose experts and relevant deputy members are present in the meeting. The other group, the Japanese experts, is present here also. In the job division, it became clear that who is responsible to do which activity so that we can progress the tasks determined on the PO. It is expected that Iranian side receives monthly report, which the Japanese team have punctually provided us with. In addition to the monthly reports, seven reports are expected to be produced and be submitted by the JICA Project Team during the project period (two-year and one month). Mr. MOTOMURA will submit the third report today belonging to 2009.

In order to pave the way practically for the project, a ten-day workshop was conducted for 8 experts from Saipa and Iran Khodro and several instructors from TVTC 4 and TVTO to improve the training capacity. The evaluation result of the workshop showed that it was very effective for the participants, whose documents exist in the project secretariat for those wishing to know about the content of the workshop through Ms. Zamani.

Now, we are reaching the end of the 1st step, which includes needs survey, and are ready to develop the training curriculum for the 1<sup>st</sup> pilot course which will commence in May in TVTC

No.4. During the needs assessment, the approach taken was a comparative one by taking CBT model of Australia, which the participants in the workshop came to learn. The revisions are based on the competency based system. The details of the program will be presented by Mr. MOTOMURA, followed by any questions of the members to remove any vague areas.

(Here, Mr. Chaharband introduces Mr. Saberi, the Deputy of Research and Planning Division of TVTO, who joined the meeting a bit later)

Then, Mr. MOTOMURA started presenting the report.

1. What kind of issues exists and how are we going to find a solution for them;
2. What to be taken to introduce CBT in TVTO;
3. Overall schedule to introduce CBT;
4. Who will do what;
5. How far will the project go; and
6. What will be done in the coming year

There are 2 issues in Iran's TVTO:

1. How to make TVT more relevant to follow industry needs, as it changes fast.
2. how to make all TVTC's in Iran be more capable to meet industry's needs

The suggestion is to introduce and adapt CBT system from Australia to produce an improved management system of TVT in Iran. He added that there are many people in TVTO who have studies the CBT system but actually it is difficult to implement it here and that the project intends to find a way to implement the system and the steps are presented as follows:

1. CBT is not a bunch of manuals but an application of a mindset to know about the concept of CBT, which will be provided to the C/P's.;
2. Then there would be a step by step description of how to implement the system based on the pilot training course;
3. Apply the model to other training areas. The C/P's will lead the work assisted by the JICA Project Team; and
4. Implement the model nationwide

The first step, which includes TVTO and TVTCs, takes a while to disseminate the concept of CBT throughout TVTO. It also takes a while the concept being accepted. The third step is a planning to implement the model to other areas. This is connected to nationwide and can be started in the second quarter of year2010. The 4th step is to implement the plan. All training area will be implemented after each of the previous step is completed.

Regarding responsibility, two teams, namely Team A and Team B, were explained. Team A consists of the TVTO experts and the JICA Project Team. Team A is responsible to develop the model. Team B consists of Iranian experts in Team A plus other experts introduced by TVTO. The roll of Team B is to disseminate and implement the model. The project's objective is not to develop a model, but the model that can be implemented. The project lasts for two years. The pilot training cycle will be implemented twice, once in year 2009 and the other in year 2010 to test solution to it. Manuals will be developed after each step.

(Here Mr. MOTOMURA shows the steps he explained before on the slide with charts.)

The project has finished the stage 1 “introduction of CBT Concept to TVTO experts” and they are supposed to disseminate the concept to other staff. A manual has been developed according to the measures taken. The JICA Project Team selected the automotive area as a training area for the 1<sup>st</sup> pilot course through a need survey. The Team also identified the equipment needed for the course. The Project (CPs) will 1) procure Equipments in April, 2) prepare training materials from April to June, 3) implements training of trainers from June to Aug, 4) establish Industry Training Advisory Board with industry from June to July, 5) recruit and select trainee from July to September, 6) implement training course from September to November and 7) monitor and evaluate from September to January. For the 2nd cycle, there will be a need survey from Jan. to Feb 2010. The pilot course will be held in TVTC No. 4, with Electric area from G3, which will last 2 months.

Here, Mr. Chaharband thanked the JICA Project Team to patiently work with TVTO to come up with a schedule with both sides' consensus, and added that CBT system is not only restricted to technical area but covers a much wider scope which is the same concept in World Bank Project. In that system, also it was concluded that TVTO system must be improved using CBT system. Obviously, this approach to TVTO is a challenge since the organization must be reformed in different aspects, not all of which is covered by this project but this project could show a direction for this improvement.

(Here, the members started to ask questions.)

Mr. Hatamzadeh, did not have any questions to raise.

Mr. Farrokhi: How do training need survey corresponds with CBT system and the method for needs survey?

Mr. Saberi had four questions:

1. I need more documents for suggestions, but I would like to know if CBT system is implemented in Japan or not, if not what is the system being implemented, since according to my understanding, CBT system as in this project is not implemented in Japan.
2. Based on the fact that need assessment model varies depending on different areas and country parameters, so how can the need assessment model, used in auto mechanic area for pilot course, be used in other areas?
3. According to the difference in approach and content in training plan and curriculum, is what you are doing in the project concerns training planning or curriculum? If it is training planning and curriculum, which is good and defined by UNESCO it is very proper, but in planning part in slide 8, curriculum is not mentioned. What is the place of curriculum in the cycle?
4. Based on a meeting of TVT principals all around the world held in Bon, a major issue mentioned in this meeting and similar meetings is leading the instructors and training towards general training (related to managerial skills, etc) as opposed to technical training. Thus, could you explain more about the direction of the project regarding technical and technical training?

The answers:

The reason why Japan has not implemented CBT is because after World War II, each company tends to recruit employers for lifetime. Since the employer knows that the employee would stay in the company for his life, the company technical schools provided for the employee in training courses that lasts almost two years. That is why CBT is not very popular so far but things are

changing in Japan. They are moving towards CBT. But because we are out of the system, we can have an impartial look and its processes. The team we have now, has an expert on monitoring and the system itself. Iran is not Australia so adaptation must be made. Also, by planning I mean the planning of the whole cycle not only curriculum with a more comprehensive plan. Regarding the 4<sup>th</sup> question, it is exactly the point to follow and responsible to industry needs, so if industry needs more general training, we should respond to that. For example, in Germany, the subjects are moving towards general training but in China more TVT training is needed. This is defined according to the industry structure of the country. In addition needs assessment must be conducted zone-wise, e.g. in different place like in different countries, and the method for needs assessment differs

Mr. Ishibashi continued that technologies and training needs assessment in the world are similar. So regarding auto mechanic, the subjects are the same but the priorities are different. So we use the training package in auto mechanic of Australia. There are 21 units of competency. With the assumption that the units needed in Iran might be the same, we asked the industry to confirm the priorities as seen by industry in Iran. Because the priorities differ in different companies regarding what they do and their size, the findings would be gained after the first pilot training course.

Mr. Saberi. What model are you using in needs assessment? Also, because we don't want to produce a new cycle but benefit of the past achievements, how can we apply the model in Iran in different sector, province and local? What model have you chosen for the needs assessment, was it interview?

Mr. Ishibashi. It was face-to-face interview. But in the interview both the interviewee and the interviewer were both familiar to or expert on the subject being interviewed. The units of competency related to auto mechanic, also related units to manufacturing can be extracted.

Mr. Saberi. What about the industries that are totally local, like handicrafts?

Mr. Motomura. Developing new units of competency regarding Iranian industries must be developed but the methodology to develop them and how to prepare questionnaires are the same in different areas and industries.

Mr. Saberi. It seems that the needs assessment and standards produced in auto mechanic area are only applicable in this area not in other areas. Even in this area, in different part of the country the results might not be the same.

Mr. Ishibashi. We asked the employer what skills are necessary for new comers. Thus, this could be the same for a large number of jobs regarding the basic competencies.

Mr. De Zilwa added that interviews were conducted through interviews through a full range of representative of different size companies and small auto repair shops.

Mr. Saberi added that even Iran Khodro and Saipa employees are lifelong and inside these companies effective training centers are provided. So the reason for not implementing CBT is not logical.

Mr. De Zilwa. The standards containing skills knowledge and attitudes coming from industries to show the requirements are needed to perform certain jobs. Curriculum defines what plan, general plan, assessment plan and tools, and learning resources are needed to implement those standards.

Mr. Saberi mentioned that this is the process taken in present TVTO too, but he can't see it in the cycle in slide 8. His question is what approach should be taken to include all the components

which is lacking in the slide. Have you developed any standards or are any documents produced?

Mr. De Zilwa added that the objective for the workshop was to teach the participants how to design learning recourses and assessment tools using templates because there is a methodology for every step. In Australia standards are defined by industry but curriculum done by training centers. Participants have the skills to write the standards and also to develop the curriculum for the standards which is related to TVTO and its policies.

Mr. Motomura. In Japan small companies often form trade associations which have a close relationship with government so the smaller companies can communicate their needs to government through the relevant trade associations.



June 27, 2009

Project for Strengthening the TVT Management Skills in TVTO

## Meeting Minute

June 25, 2009 / 9:30-11:30 / CDC Meeting Room

1. Participants:

- Mr. Azad, Mr. Hakimpour, Mr. Ghofran (CDC)
- Mr. Ishibashi, Mr. Dezilwa, Mr. Jackson, Mr. Saito, Mr. Imani, Ms. Akbari:Interpreter (JICA Project Team)

2. Main Points:

- Project office will be ready in one week in the Forsat street. (This will be 10 to 20 minutes from CDC building)
- Project Coordinator has been assigned. Mr. Ghofran.  
We will have weekly meeting on every Monday from 9:00a.m. to share the information about the progress of the project.
- Weekly progress report will be submitted in English and Farsi to CDC on Sunday morning prior to the weekly meeting. Format of weekly report will be suggested by JICA Project Team ->by Roger
- Mr. Azad showed his commitment on the JICA project and successful implementation of Trainer's Training and Pilot Training Course.
- Dr. Ismaili would like to observe Trainer's Training and Pilot Training Course to obtain the CBT method and accepted by JICA Project Team.
- Mr. Azad will participate IRG (Industry Reference Group) 2<sup>nd</sup> meeting on Saturday.
- Mr. Azad understood that Pilot Training Course will focus on entry level of training.
- JICA Project Team understood that Mr. Azad is interested in how to apply result of Project to all other areas of training.

3. Immediate action to be taken

- Reconfirm the data of moving to new project office and location of it. (by Saito)
- Create a draft format of Weekly Report (by Roger)

[end]

July 2, 2009  
Prepared by JICA Team

Project for Strengthening the TVT Management Skills in TVTO

## Meeting Minute

June 29, 2009 / 9:00-10:45 / CDC Meeting Room

1. Participants:

- Mr. Hakimpour, Mr. Ghofran (CDC)
- Mr. Ishibashi, Mr. Dezilwa, Mr. Jackson, Mr. Saito, Mr. Imani, Ms. Akbari:Interpreter (JICA Project Team)

2. Immediate action to be taken

- CDC will arrange to send letters from President of TVTO to Iran Khodro and Auto Repair Trade to ask participation to IRG meeting.  
Condition is to participate meeting for 3 hours every month. Team wants to have 2 senior technician from Iran Khodro and three technicians/engineers from Auto Repair Trade. 3rd meeting of IRG will be Saturday, July 18th. From 9:00a.m.
- CDC will arrange to take Saito to a new building someday in next week.
- Co Coordinator for IRG from CDC will be assigned.

3. Main Point

New Project Office

- -New Project Office will be determined to locate in CDC building or new building in Forsat Street.
- Location has been identified. Address will be informed.

Industry Reference Group (IRG)

- 2nd IRG meeting was organized on June 27.
- IRG meeting will be organized every month.
- Project team requested to assigning Co Coordinator for IRG from CDC.

Trainers' Training

- Trainers' Training has been started from June 28 and total hours will be 200hrs. in 5 weeks. CDC will help anything when problems occur.

Pilot Training Course

- Target trainees of Pilot Training Course are high-school graduate and people with small practical auto mechanic work experiences. Total participants will be 15. About 5 will be from Industry. Pretest will be carried out for recruiting participants for the Pilot.

[end]

July 15, 2009

Project for Strengthening the TVT Management Skills in TVTO

## Meeting Minute

July 13, 2009 / 11:00-13:30 / CDC Meeting Room

1. Participants:

- Mr. Azad, Mr. Ghofran (CDC)
- Mr. Jackson, Mr. Saito, Mr. Imani, Ms. Akbari:Interpreter (JICA Project Team)

2. Immediate action to be taken

CDC will take immediate action below:

- Arrange a visit to possible new project office.
- Search for the document in which tells all the output documents from JICA Projects is to be translated into Farsi.
- Send letter to relevant department to assign CPs to JICA Project

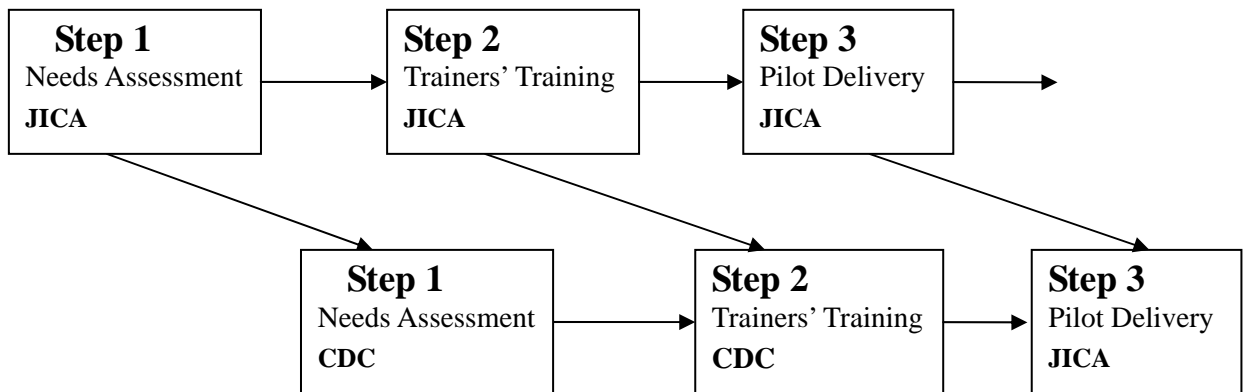
JICA Project Team will take immediate action below:

- Make a report on CP Trainers' Training activities
- Make a list of assignments for CP trainers during JICA Expert absent period.
- Send letter to Mr. Azad about hiring IRG Coordinator with Mr. Mazdarani's CV.
- Make opportunity to communicate between Mr. Azad and CP members
- Provide materials to show process of project activities and theory **and the outcome of the work that has been done** to Mr. Azad

3. Main Points:

- CDC would like to allocate 1<sup>st</sup> floor of CDC building for JICA Project team but most probably new office will be located in a building in Forsat Street. Office will have ADSL.
- Mr. Azad will supervise CPs' activities during no JICA experts are in Iran.
- Invitation letters to IRG members to Iran Khodro and Auto Repair shop Union has been sent from CDC.
- To keep a TVTO car for Trainers Training has been sent from CDC
- Weekly report will be made only in English.
- CDC would like to suggest that CDC will implement pilot course simultaneously JICA Project Pilot course by utilizing experience of the project and check applicability of it into different area. JICA team should take care of CDC's implementation. **JICA will**

act as an advisor when CDC implements its project parallel to JICA's project.



- 3 units of competency have been completed in Trainers' Training.
- Letter for Mr. Nagumo's wife's VISA is out of control of Mr. Azad. ->Will be followed up by Mr. Imani.

[end]

August 1, 2009

Project for Strengthening the TVT Management Skills in TVTO

## Meeting Minute

July 27, 2009 / 9:30-11:00 / CDC Meeting Room

1. Participants:
  - Mr. Azad, Mr. Ghofran (CDC)
  - Mr. Saito, Mr. Imani
2. Main Points:
  - Trainees of Pilot Course should be from industry so that we can evaluate the performance of graduate in the industry.(CDC) -> It will be difficult to ask them to dispatch to training for 2 month, but asking to IRG member companies.(Project)
  - CDC will try to find trainees from Industry for Pilot Course.
  - Project Team is planning to carry out recruitment in below four channels.
    1. IRG member companies
    2. Provincial Office of Tehran (Through TVTCs)
    3. Independent dealers and repair workshops
    4. Job matching agents.
  - CDC accepted that final decision of selecting trainees will be made by Project Team and CP trainers.
  - CDC will provide suggestions on Monitoring and Evaluation. ->Plan of M&E will be sent to Mr. Azad.
  - CDC accepted Mr. Mazdarani to be IRG Coordinator.
  - CDC will do his best to keep present office for the period that no JICA experts are in Iran.
  - Mr. Khalilzad will be transferred to CDC eternally. Mr. Salimian will be transferred to CDC temporary and retune to TVTC after the project.
3. Immediate Actions to be taken from JICA Team:
  - Reconsideration of target trainees for the Pilot Course.
  - Inform Mr. Azad the reason of 6th UC can not be covered.
4. Immediate actions to be taken from TVTO side
  - Follow up on the participation to IRG from Iran Khodro and Repair Workshop Trade Union.

[End]

August 5, 2009

Project for Strengthening the TVT Management Skills in TVTO

## Meeting Minute

August 3, 2009 / 9:00-11:30 / CDC Meeting Room

1. Participants:

- Mr. Azad (10:00-), Mr. Ghofran (CDC)
- Mr. Kevin, Mr. Saito, Mr. Imani, Mr. Salimian, Mr. Rafati (-10:10), Ms. Maryam

2. Main Points:

IRG

- TVTO sent letter to Iran Khodro and Automotive Repair Trade Union. Mr. Mazdarani will visit them to explain details.
- CDC is considering the possibility of payment to IRG members in terms of rules and regulations.

Trainer's Training

- Trainer's Training has been completed and tasks has been confirmed.
- Exhaust fan, air conditions, ADLS installation are not completed yet. ->Will be completed by CDC and Provincial office of Tehran and will be followed up by CDC.

1<sup>st</sup> Pilot Course

- Graduate from lower secondary will be included in a target trainees. Revise the Flyer by adding "or similar level of knowledge".
- Draft Framework of M&E has been submitted to CDC. Mr. Azad would like to give comment on it. CDC want draft Questionnaire of M&E.
- 6<sup>th</sup> UC has been localized and going to be fully covered.

2<sup>nd</sup> Pilot Course

- CDC will be informed process of Needs Analysis before its implementation. ( to be confirmed this sentence)
- CDC will be informed of determined UCs after the needs analysis. ( to be confirmed this sentence)
- Course content should be complete and can provide some qualification to graduate. JPT will select Unit of Competency in that perspective.

- If TVTC No. 7 is completed by the time, CDC will consider the possibility of implementing second Pilot in TVTC 7.
- Length of the course will depend of UCs. About 400hs(3 months) will necessary depend on UCs.
- CDC has been implementing CBT related seminar at TVTO. More people who learnt CBT should involved in 2<sup>nd</sup> Pilot. Trainers who involved in 1<sup>st</sup> Pilot will be leader and positioned to provide advice.
- JPT should not only standby but should commit to carry out some activities.

#### Others

- Mr. Azad is pleased with set of materials of past draft manuals, induction seminar materials, etc. Contents and information are fine.
- CDC will implement pilot course in CBT format following JPT's 1<sup>st</sup> Pilot Course in other 3 trade areas. JPT will support by providing advice.
- Mr. Imani will supervise the counterparts' activities during the period when JPT is absent Iran.

#### Immediate action to be taken

- Will have meeting before JICA Experts leave.
- Provide finalized list of task for CP trainers during expert absence. (JPT)
- Provide finalized M&E Framework. (JPT)
- Provide draft Questionnaire of M&E (JPT)

[end]



## Minute of Meeting

Meeting at CDC Meeting Room on 14th September 2009 for a periodical meeting

### 1. Attendance:

CDC	2	Mr. Ebrahim AZAD, Mr. Hassan Ghofran
Counterparts	2	Mr. Ebrahim Khalilzadeh, Mr. Salimian Seyed Mohsen
JICA Project Team	3	Mr Nagumo, Mr Imani, Ms Akbari

### 2. Discussions

#### Lease of Mr. Nikouravan from the training division:

The letter to request Nikouravan's participation as full time counterpart from Training Department. Mr Azad said he had written the letter.

#### Overtime and bonus to the instructors:

In response to Mr Khalilzadeh's complaint about being over assigned, Azad said that he has not assigned anything yet.

Mr Azad also requested that a work record of the trainers be given to CDC, so that they can be assigned by CDC when they are free.

#### Project Office:

Mr Azad stated that additional office space will be provided.

#### 2nd Progress Report(Draft):

Mr. AZAD and Mr. Ghofran were requested to review the draft version of the report by 21st September. Both of them agreed.

#### Midterm Evaluation:

Evaluation Team from Japan will arrive around 2nd or 3rd week of November for 2-3 weeks to monitor the progress of the project in comparison with the Project Design Matrix (PDM) in terms of quality and schedule.

Mr. Ghofran accepted to prepare information which the JICA Tokyo HQ requested to prepare for the evaluation by 28th September 2009.

#### Pilot Course:

Mr Azad requested to submit a list of applicant for the course with 1) their name, 2) contact number, 3) contact address, 4) educational background and/or skill level. In addition, he requested to provide information of 1) how each applicant obtained the information of the course; e.g. through the flyers, recommended by somebody, and 2) their motivation, e.g. only to receive a certificate, etc.

There was a plan to have a training of trainers (Mr. Nikouravan train other counterpart) on Electronic Gasoline Injection Systems at TVTC No4 during the week of 15th Aug – 19th Aug. But it was postponed to 15th and 16th September due to absence of other counterparts at the

planned period.

Industry Reference Group (IRG):

The Project Team reported to CDC that two new members joined to IRG.

-END-

28 September 2009

## Minute of Meeting

Meeting at CDC Meeting Room on 28th September 2009 for a periodical meeting

### 1. Attendance:

CDC	1	Mr. Hassan Ghofran
JICA Project Team	3	Mr Nagumo, Mr. Saito and Mr Imani

### 2. Discussions

#### Project Office:

The JPT requested to make Mr. Nagumo use Mr. Khalilzadeh's desk in CDC building. The JPT also suggested making Mr. Ghofran and Mr. Nagumo stay at same room for smooth collaboration. Mr. Ghofran told to forward this request (suggestion) to Mr. Azad..

#### Midterm Evaluation of the Project:

The JPT reclaimed to Mr. Ghofran to provide the data of expenditure by TVTO for the project which was requested by JICA Tokyo Headquarter for midterm evaluation and its deadline was 28th September. Mr. Ghofran explained he needed clarification from Mr. Azad and therefore he could not provide it today. Both of us agreed that Mr. Ghofran would provide it to JPT right after he get a confirmation from Mr. Azad.

#### Pilot Course:

**Training of Trainers:** It was confirmed by both parties that a training of trainers (Mr. Nikouravan train other counterpart) on Electronic Gasoline Injection Systems at TVTC No4 was successfully implemented on 15th and 16th of September.

**Recruitment for Pilot Course:** Pre-test for applicant through TVTC No.4 was done 27th Sep and interview has been done. Pre-test and interview for applicant from industry will be done on 29th.

**Monitoring and Evaluation:** The workshop on monitoring and evaluation of the Project was organized on 26th September to let all counterparts, who will do monitoring and evaluation on the course, have same idea for monitoring and evaluation. The minute of the workshop is attached.

**Equipment and Consumable:** Procurement of goods is behind schedule. Screen of the data projector and table has not been procured yet and need to follow up. All the others had been procured.

#### Industry Reference Group (IRG):

Both party agreed to organize IRG in October.

-END-

## Minute of Meeting

Meeting at CDC Meeting Room on 5th October 2009 for a weekly meeting

### 1. Attendance:

TVTO

CDC

1 Mr. Hassan Ghofran

JICA Project Team 3 Mr Nagumo, Mr. Saito and Mr Imani

### 2. Discussions

#### Pilot Course:

**Recruitment for Pilot Course:** Pre-test and interview were implemented on 27th and on both of 27th and 28th Sep respectively for applicants recruited through TVTC No. 4. For applicant recruited through mega motor, both of pre-test and interview were implemented on 29th Sep. After that, screening was done and the result was notified to CDC. CDC suggested replacing three candidates with others with the reason of 1) their score of pre-test were poor, 2) their job statuses were unsuitable and 3) their educational certificates were unsuitable. The suggestion was accepted and three candidates were replaced with others. The notification of acceptance was sent to selected trainees on 30th September.

**Translation of Workbook:** One part of translation of the workbook is behind the schedule. Translation itself has been completed and it is under typing now.

**Procurement of Equipment:** All equipment has been procured.

**Pilot training course:** The course has been commenced successfully from 3rd October and will last by 25th Nove.

**M&E:** Daily monitoring is on course.

#### Industry Reference Group (IRG):

It is scheduled to be organized on 11th October at the conference room (auditorium type) on 2nd floor of TVTO main building.

The JICA Project Team suggested that Mr. Azad would have brief welcome address to IRG members at the meeting to appreciate their effort, showing his pose that TVTO is studying of standard from industry. Mr. Ghofran promised to discuss this with Mr. Azad.

The JICA Project Team will invite members to the Iranian restaurant near TVTO. So, TVTO does not need to provide lunch for members on 11th October.

The JICA Project Team briefed with new IRG members from Iran Khodro and trade union about role of IRG and provided set of materials for the next meeting so that they would be ready.

Agenda of the meeting are 1) Roles of IRG members, 2) Discussion on units of competencies of "Steering and Suspension Cluster", 3) Pilot Training Course and 4) Future plan of IRG meetings. Mr. Rafati will facilitate 2) Discussion on units of competencies of "Steering and Suspension

Cluster" under guidance of Mr. Mazdarani, a coordinator of IRG.

Draft schedule of need survey for the 2nd pilot course will be informed to IRG at the meeting.

The next IRG meeting will be counted as 4th meeting, although the last meeting, which was scheduled in Aug 2009, was canceled, as official invitation letter sent to the member used the number "3rd" already and may confuse others if we use the number "3rd" again for the next meeting.

**Midterm Evaluation of the Project:**

The JPT reclaimed to CDC to provide the data of expenditure by TVTO for the project which was requested by JICA Tokyo Headquarter for midterm evaluation. Its deadline was 28th September and behind the schedule, due to the delay of developing the list of equipment with its cost.

**Workload of CPs during the pilot course:**

While one CP is delivering a course to trainee, other three CPs mainly support and observe the course. CDC clarified if the three CPs can leave the class and use their time to work other tasks. The JPT explained that the purpose of delivering the course is not only implementing the course to the trainee, but to make CPs to have practical experience through delivering CBT course. In other words, the pilot course is part of Trainer's Training. The JICA Project Team will submit schedule of CPs in the pilot course to Mr. Ghofran ASAP

**Project Office:**

The JPT requested to make Mr. Nagumo use Mr. Khalilzadeh's desk in CDC building. The JPT also suggested making Mr. Ghofran and Mr. Nagumo stay at same room for smooth collaboration. Mr. Ghofran told to forward this request (suggestion) to Mr. Azad..

-END-

19 October 2009

## Minute of Meeting

Meeting at CDC Meeting Room

on 19th October 2009 (10:00-11:30 am) as Weekly Meeting between JICA and CDC

### 1. Attendance:

CDC	1	Mr. Hassan Ghofran
JICA Project Team	4	Mr Kevin Jackson, Mr. Kunitoshi Saito, Mr Imani Parviz, Ms.Nakako Ishimaru

### 2. Discussions

#### **The 2nd Progress Report (English) and Monthly Report for September**

Both of the 2nd Progress Report (English) and Monthly Report for September were submitted to CDC.

\* The reports will be submitted to Mr. Azad and Mr. Saberi. The Farsi translation of the 2nd Progress Report, which is not an obligation of the project team but only prepared for the convenience of CDC, is being proof-read at the moment and will be submitted as soon as this is completed.

#### **Progress of 1st Pilot Course:**

In summary, the course is running quite successfully and completed 2 units of competency since its commencement on 3rd October, thanks to great support from Najibzadeh as well as the staff of TVTC4. Both Kevin and Mr.Saito are conducting course monitoring. In order to check the operation, Kevin is observing the course and consulting with CPs at daily basis. Mr.Saito is conducting interviews with Trainers on weekly basis, which he is drafting a Monitoring check list form to be presented in his working Manual as well as utilized in the second training program.

Beside above, the major concerns are discussed as follows:

#### **Workload of the counterparts beside the delivery of training course**

English Session: Considering the betterment of future technical translation, Project is planning English session for the counterparts. It will be held two(2) hours a day managing time before/after Training course. These sessions will be a necessary and efficient investment for the improvement of technical wording, and the final achievement of the pilot course.

As for the other assignment than those directly related to the project, considering the limited human resources at CDC/TVTO, the project accepts the CPs may some works other than those directly related to the Project, only if the task load is within 3-4 hours per week and the work will be done in TVTC No. 4. However, the project insists that ideally, CPs should be involved the pilot training course fully, and their absence at any time will have a negative impact on the

outcomes of the project. In order to manage task load to CPs, CDC will not give tasks directly to CPs but through Project Team.

\*In order to make this point clearer, the information of actual workload of the counterparts in more details will be informed to CDC very soon.

\*\*Also, related to this agenda, it was requested that the assigned deadline for the assignment as for Training course of Iran Khodro, which Mr.Nikoravan is currently involved, to be postponed by Wednesday.

### **Transportation commuting TVTC and TVTO**

There were inadequacies of car arrangement commuting from TVTC to TVTO for three times. Twice of them, CPs had to wait until the car picked them up after the class ends, and once CPs took a taxi as the TVTO's car arrangement section told and shouldered its charge. The project has asked that this be better managed from now on till the end of the course.

\*CDC will take into consideration about the bill.

### **Lunch reservation at CDC**

Considering the fluctuating number of visitors to the training course such as Mr.Saito and Ishimaru (from six to eight on average), the project asked for permission to be given to Mr.Najib to make request directly to allow for these changes in numbers.

\*CDC will look into a possible solution.

### **The 4th Industry Reference Group**

The 4th IRG was held 11th October as scheduled. The meeting minutes summarizes that most of time was spent for repeating basic explanation to new-comers about the project and CBT models. Because of this, SAIPA Yadak (the old members of IRG) suggested that the project's visited industries this would be more efficient, and allow for more meaningful discussions about the units of competencies.

For the future measure, an option was discussed that the Project raises a few **visits to industry** before the meeting IRG: that is, around 80 % of information collection for needs assessment will be done at industries or workshops, then whose contents would be confirmed at the IRG meeting.

As for **new membership for IRG**, not Iran Khodro (manufacturing industry), but ISACO (Iran Khodro's repair service line) will be suitable in view of our objective.

In order to avoid confusion, title of IRG will be changed to "Automotive Service and Repair Industry" so that it is clear that target industry is service and repair of automotive without including manufactures.

### **Preparation of the second pilot course (April to September 2010)**

The designing the second pilot course, scheduled to be held end of April to the beginning of September 2010 is now undergone: with the given conditions, its framework and sample skill sets should be developed by October to November 2009, followed by selecting skill set in consideration of IRG's opinion (November to December 2009).

The tentative framework of Pilot course 2 was explained briefly as shown on the table below (Source: p.2, Weekly Meeting Agenda, 19th October 2009).

Item	Contents	Status
Area	Automotive Service and Repair	To be discussed
Target Level	TBD (To Be Determined) in consultation with IRG on November 2009	
Unit of Competency	2 Units of Employability Skills (Occupational Health and Safety + Tools) + Technical parts (To be determined in consultation with IRG)	
Target Trainees	TBD in consultation with IRG	
Trainers	Two option Option1: The current four (4) trainers / CPs will deliver the 2nd pilot course Option2: Recruit new four (4) CPs to deliver the 2nd pilot training course. The current four (4) CPs will act as trainers of new trainers. Therefore the total trainers/CPs will be eight (8) excluding Mr. Azad and Mr. Ghofran	

As for **Venue**, if the extension work of TVTC No.7 will be finished soon, ideally, the project suggests an option to have the coming course. On the other hand, however, since the schedule of construction is not known, it is unstable to count on TVTC No.7 as its candidate.

TVTC No.4 will be fair enough considering both of the equipments as well as staff are ready.

TVTC No.9 (*Mousyrie*) can be nice, except its distance from TVTO and Tehran (one-hour drive).

The experts raise an option with the **increased number counterparts** so that CDC/TVTO will be able to obtain more human resource who are familiar with CBT, which will give more stable impact in the long run. In either case, the acting four (4) counterparts are must and should be the core members, since their skills and knowledge have been lifted up considerably day by day. The participants of Roger's Workshop on the overview of CBT, such as those members of KOICA Project, can be candidates for the additional members. But, the project requires the counterparts to be committed full-time would be better four (4) counterparts as it is rather than the increased part-time counterparts. Also, it is requested the nomination of candidates will be done by the end of Dec. 2009 before starting of translation

\*These items will be reported, considered and discussed.

#### **JICA Mid-term evaluation team and JCC**

The possible delay of schedule was reported and the general requirement for JICA's evaluation was explained such as interview with the officials of CDC and TVTO HQs.

The tentative schedule of the coming JCC was informed. As for the membership of JCC, the project will deliver a draft of participant list based on the MOU of JICA.

#### **Office relocation**

Showing the coming experts (Roger and Mr.Ishibashi) and possible recruitment of interpreters accordingly, the project requested the importance of sufficient work space for efficiency of performance.

-END-



## Minute of Meeting

Meeting at CDC Meeting Room

on 27th October 2009 (10:30-11:45 am) as Weekly Meeting between JICA and CDC

### 1. Attendance

CDC	2	Mr.Ebrahim AZAD (until 11:15am ) Mr. Hassan Ghofran
JICA Project Team	4	Mr Kevin Jackson, Mr. Kunitoshi Saito, Mr Imani Parviz, Ms.Nakako Ishimaru
TVTO	1	Ms. Parisa Jaymand

### 2. Discussions

#### Progress of 1st Pilot Course:

Kevin reported that the course, now in its 4th week, is running quite successfully. The number of trainees is decreased to 13 from the original number of 14, because one (1) trainee, who is a college student, had to leave several hours for his schooling.

For the trainers, English class are held aiming at lifting up their skills of technical translation: it takes 10 hours a week. For this week, Both Mr.Rafati and Mr.Khalilzade had to leave due to the reasons for each: Mr.Rafati for health problem of his family and Mr.Khalilzad for handing over his ex-work of the equipments storage at TVTC No.9 to his replacement. However, since they are not the trainers timetabled for this week, the training delivery was held as scheduled.

From Mr.Saito, the monitoring and evaluation expert reported that he is now constructing a M/E system while conducting monitoring the 1st pilot course. For the process monitoring, he currently applies observation as well as structured interviews with the trainees and trainers; such information would be crucial data for course monitoring. Midterm monitoring and evaluation is scheduled in the beginning of next week.

Mr Azad stated that the results gained from the evaluation of the course should be meaningful and not accidental. He also insists that there should be some statistical analysis for evaluation and asked about the name of the method.

Mr.Saito and Kevin emphasized that the ultimate goal of the course monitoring is to assess the achievement of competency. In this regard, both graduation rate and employment rate would be the basis for data analysis and feedback data from trainees and trainers is supplementary. Also, Ishimaru pointed out that the monitoring process currently conducted is an attempt to construct a monitoring system that will work as such, its data collection and analysis are oriented are a practical approach rather than a thorough survey.

\*Mr.Azad expressed that he would like to raise his comments for evaluation of the pilot training course in the future after knowing which method is being used by JICA team to evaluate the course.

\*\*The schedule of 1st pilot training course for this week was confirmed. Kevin welcomed everyone to visit TVTC No.4 for observation.

\*\*\*Mr.Saito will prepare a note briefing about his monitoring method for Mr.Azad.

### **Report on the other related tasks**

As for **the 2nd pilot training course preparation**, the framework is still under discussion among the project experts. If there are any further developments, the Team will report to the CDC/TVTO ASAP. What is most needed from CDC/TVTO, is the decision, on the number of counterparts (trainers) who will be released and their appointment date, this information will be needed by the end of December 2009. This is because in January, counterparts training will take place, followed by the translation of workbook by trainers.

Regarding IRG, according to Mr.Mazdrani, the IRG coordinator, since Trade Union has good networks with small workshops, they might contribute for employment of would-be alumni of the 1st pilot training course. In this regard, it is suggested that IRG members will make a visit to the pilot training course some time around at 7th week of the course.

### **Workload of the counterparts beside the delivery of training course**

As for the other assignment than those directly related to the project, Kevin had prepared a note for CDC regarding the actual workload of the counterparts in more details as requested in the last weekly meeting. This will be sent via e-mail immediately after this meeting.

Kevin repeated that ideally, CPs should be involved the pilot training course fully, and their absence at any time will have a negative impact on the outcomes of the project. Also, he pointed out that there has been compromise made by the Project Team accepting that the counterparts who are not timetabled (as the leading Instructor) may do extra work (for the CDC) other than those directly related to the Project, only if the task load is within 3-4 hours per week per person and that the work is done in TVTC No. 4. In order to manage the pilot training course effectively, any request by CDC of the Instructors time, needs to be made directly to the Project Team and not to the trainers themselves.

### **Work schedule**

The schedules of other upcoming events are informed as follows:

- 29 October to 11 December: Mr.Roger DeZilwa, Expert in Training Standard and Curriculum/CBT Advisor
- 28th Nov – 9th Dec 2009 (tentative): JICA Mid-Term Evaluation Team (Delay of Schedule due to no
- 2nd February 2010 (Tentative): Joint Coordinating Committee Meeting

### **Relocation of Project office**

A section at the end corner of 5th floor of TVTO has been offered as the supplementary work space for the project experts. Setting up of this space is in process, arranged by Project

Coordinator, Ms.Parisa Jaymand.

### **3. Closing**

- All the agenda discussed at the meeting will be followed based on each member's responsibility and duties.
- Next weekly meeting will be held on 2nd November at CDC.

-END-

## Minute of Meeting

Meeting at CDC Meeting Room

on 2nd November 2009 (10:10-11:50 am) as Weekly Meeting between JICA and CDC

### 1. Attendance

CDC	1	Mr. Hassan Ghofran
JICA Project Team	4	Mr. Roger DeZilwa, Mr. Kevin Jackson, Mr. Kunitoshi Saito, Mr. Imani Parviz, Ms. Nakako Ishimaru
TVTO	1	Ms. Parisa Jaymand

### 2. Discussions

#### Progress of 1st Pilot Course:

Kevin reported that the course, now in its 5th week, is running quite successfully. However, since the competencies start to cover complex subject, the implementation should be flexible in line with the trainees' achievement. CDC will consider the possibility of extending the course duration with regard to the availability of the trainers and the place if the need arises as CBT is competency-based and not scheduled-based. However, the trainees' availability needs to be checked preferably near the end of the course.

As for the feedback from trainers/trainees, Saito made a prompt report based on his mid-term evaluation conducted on 1st November. According to the trainees' answer written in the questionnaire, they, with small deviation, expressed their satisfaction in total except a few complaints on lunch, materials, and textbook. These comments will be collected and become a supplementary data for the overall evaluation in the end. Also, feedbacks from the trainers are obtained through interviews and/or daily consultations.

\*Roger proposed a half-day session to brief basic ideas of Competency Based Training (CBT) and its experiences in Australia. This will be held for both Ms. Parisa Jaymand as Project Coordinator and Mr. Hassan Ghofran as Assistant for Technical Supervisor, so that they obtain a clearer picture on CBT, aiming at supporting their activities with JICA Project Team in the future.

#### Preparation for the 2nd Pilot Course

In preparation for the 2nd pilot course, the attendants discussed various potentials of counterparts as well as assignment of new counterparts. The main points raised in this discussion are:

as the increased number of counterparts, training the 2nd generation, will be a good affect on the impact of project, so JPT recommends TVTO considers this possibility;

It'd be nicer that additional counterparts will be involved full-time as the current. However, in case it is too hard, the experts may consider about good plans of rotations with the combination of both generations;

It is quite effective for JPT and TVTO to hold a CBT induction WS in prior to 2nd pilot course. Ideally, these two should be linked: this is because lectures on CBT, exclusively and with no concrete case studies and practices would dampen its value.

On the other hand, considering merits of involving broader stakeholders from other training areas of TVTO, another option is to have a CBT WS in parallel, say by involving ITC for example, to preparation of 2nd pilot course.

Those trainers (like Mr.Ghasemi, Mr.Khamidikia) who had been involved until CBT induction course in February 2009 by Roger may play a good role to explore the basic concepts of CBT in more practical way.

	<b>Option 1</b>	<b>Option 2</b>	<b>Option 3</b>
Target	1st generation only	1st +2nd generations	
No. of Counterparts	4	4+4=8	4+4=8
Conditions	Full-time	Full-time is recommended; and Part-time with rotations	Full-time/Part-time with rotations
Remarks		-May recruit alumni of the CBT induction WS (held February 2009).	-Recruit new trainers and train them with CBT induction WS before 2nd pilot training course (February 2010) -alumni CBT WS(2009) will support the WS 2010.

\*JPT asked CDC to inform of their decision about the assignment of counterparts. CDC asked JPT to make a summary of possible scenarios. (see Attachment.)

### **Workload of the counterparts beside the delivery of training course**

As for the other assignment than those directly related to the project, Kevin had prepared a note for CDC regarding the actual workload of the counterparts in more details as requested in the last weekly meeting. This will be sent via e-mail immediately after this meeting.

Kevin repeated that ideally, CPs should be involved the pilot training course fully, and their absence at any time will have a negative impact on the outcomes of the project. Also, he pointed out that there has been compromise made by the Project Team accepting that the counterparts who are not timetabled (as the leading Instructor) may do extra work (for the CDC) other than those directly related to the Project, only if the task load is within 3-4 hours per week per person and that the work is done in TVTC No. 4. In order to manage the pilot training course effectively, any request by CDC of the Instructors time, needs to be made directly to the Project Team and not to the trainers themselves.

### **Work schedule**

Schedule for the coming week are informed as follows:

- Plan of observation tour for IRG members (Week 7)
- Mr.Toru ISHIBASHI, Expert in Training Needs Analysis (22 November to 30 December)
- As for the visit to Tehran for mid-term review of the Project by JICA HQ, official letter will

be sent by JICA (JICA Iran Office). For effective coordination, its details will be delivered as soon as possible.

Table 2 Schedule for mid-term review of Project by JICA HQ (as of 2nd November)

<b>Duration</b>	Arrival on 6th December to Leave on 16th December (11 days in Tehran)
<b>Objectives</b>	Meeting with TVTO and JICA Experts; Interview, observation and other data collection from the stakeholders; Signing MM; Report to JICA Iran and Embassy
<b>Visit members</b>	Mr.Konishi, Mr.Furuta, Mr.Shirouzu (JICA HQ) Ms.Mitani (Consultant/Review Analyst)

Joint Coordinating Committee Meeting is planned on 2nd February 2010.

### 3. Closing

- All the agenda discussed at the meeting will be followed based on each member's duties.
- Next weekly meeting will be held on 9th November at CDC.

-END-

17th November 2009

## Minute of Meeting

Meeting at CDC Meeting Room

on 17th November 2009 (10:10-11:50 am) as Weekly Meeting between JICA and CDC

### 1. Attendance

CDC	1	Mr. Hassan Ghofran
JICA Project Team	6	Mr. Roger DeZilwa, Mr. Kevin Jackson, Mr. Kunitoshi Saito, Mr. Imani Parviz, Ms. Nakako Ishimaru, Ms. Sara Javari
TVTO	1	Ms. Parisa Jaymand

### 2. Discussions

#### Progress of the 1st Pilot Course and Related sharing on CBT concepts

Ms. Ishimaru reported that the course in its 7th week is running quite successfully. There was also the first visit by industry (Mr. Mohamadi, Megamotor) who reported a very positive impression of the progress of the course.

One trainee, however, decided to leave the course. He appeared to have experienced some difficulties with the trainers seemingly because he had been over-confident about his capabilities with some of the course units.

Mr. Saito presented some findings from his mid-term evaluation. His evaluation was conducted by applying interviews and statistical analysis of questionnaires. According to his evaluation report, although there appears to be some concern about the number of some materials and equipments most of the trainees commented that they are acquiring the skills and knowledge incorporated in the course. Mr. Saito has submitted the brief report to Mr. Azad but there has been no response from him to date.

The concept of "resource book" came up for discussion: Roger explained that conventional ideas of "textbooks" are different from the kind of resources used in CBT course delivery. Training resources within the CBT delivery system includes not only textbooks but also a much broader range of resources including relevant and appropriate material sourced through the internet, audio-visual and other computer-generated material developed by trainers and training organizations, actual models and component parts derived from industry and, importantly, workshop manuals produced by manufacturers and service organizations. In CBT it is crucial for the trainees to access, collect, and analyze necessary information which is utilized in the real job settings. Therefore, Roger implied one of Unit of Competency may address "how to read technical materials in workplace."

The unique concepts of CBT should be discussed quite carefully as well as rendered into appropriate Farsi. It is quite essential to work with the trainees in the working place to access the information they need. In connection with this matter, Mr. Ghofran pointed out the importance of providing a glossary of technical terms for the trainees in the 2nd pilot course.

Roger highlighted the concept of assessment in CBT. CBT assessment does not rely on a final examination for overall assessment of their progress in a course. Instead, continuous and

progressive assessment is conducted to monitor whether the standards of competency are achieved in each training session.

By such progressive assessment, the trainees can demonstrate competency continuously, and be accordingly observed by the trainers. For this purpose, the trainers of CBT always possess a portfolio in which they keep track of their trainees' demonstration of competence at each step.

Unlike in the traditional system, the idea of assessment is based on negotiation between the trainer and trainees. That is, the trainers should generally only assess when trainees are ready, and they should be fully aware of the competencies they are going to be assessed against. (This of course does not preclude conducting some final tests – either theoretical or practical - but even these should not be used as devices to "catch trainees out".

Kevin confirmed that in the competency-based system the trainees are assessed only when they are ready. The trainers judge when the trainees are to be assessed either competent or not. In reality, however, it is quite hard for the trainers of the 1st pilot training course to understand such idea of assessment. He stressed that one of the significant features of this project is making a model of delivery and assessment. In many ways this is more important even than the course content. In other words, JPT is an attempt to alter the current 'mind-set' of the providers of TVT so they become more responsive to the labour market.

The plan of induction CBT workshop was postponed to be re-scheduled for broader targets (overall TVTO) as Mr Saberi had requested in the meeting. However, for the sake of JPT's counterparts who need to be fully briefed about the Project and its objectives, there will be a brief training session for Mr.Ghofran and Ms Jaiman in the coming week.

### **Preparation for the 2nd Pilot Course**

With regard to the second pilot course, the table below outlines the proposed key milestones. It is recommended that the number of counterpart trainers be increased for participation in the 2nd pilot course. This has been raised with CDC but so far the response from CDC has not been positive. Roger stressed the importance of sufficient human resources being involved with JPT for introducing and implementing CBT especially with regard to establishing national competency standards and a national TVT system for Iran.

Table 1 Draft Schedule of 2nd Pilot Training Course

<b>Major Tasks</b>	<b>Schedule</b>
Developing framework	Oct – Nov 2009
Developing sample skill set	Oct - Nov 2009
Selecting skill set in consideration of IRG's opinion	Nov – Dec 2009
Translation of workbook by CPs	Jan – Mar 2010
Procurement of equipment if need arises	Feb – April 2010
Implementing "Training of Trainers" and "2nd Pilot Course"	End of Apr – Beg of Sep 2010

Roger reported the framework for the 2nd pilot course is being designed for the trainees to acquire **entry-level** certification for employment in the automotive service and repair industry sector.

An idea of 'work placement' in the middle of the 2nd pilot course was raised by Kevin and Roger: the four (4) weeks of work experience in industry shall be placed within the total of 14-week period of the 2nd pilot.



### **IRG meeting**

There has been significant progress for the experts of JPT to select, target, and recruit the members of IRG that most fit our plans for the new training course. The official invitation letters will be sent to all the participants within the day. JPT will place the coming opportunity as a relatively formal meeting but more importantly, both before and after this meeting, there are precise discussions continuously between TVTO and IRG. In this regard, it is hoped that Mr.Mazdarani (as the JPT's IRG coordinator) shall play an active role to facilitate further communication between IRG members.

In order to obtain sufficient support from industries for competency based training courses, it is clear that building trust among TVTO and the industries is far more essential. JPT suggested that TVTO starts to consider whether and how they will hand over such a role in the long term.

For the coming 5th IRG meeting, however, JPT experts are going to ask for supports from the IRG, or at least comments for the 2nd pilot training course: that is, provision of training equipments, acceptance of work placement, and provision of insurance in case of accidents on the trainees.

### **Work Schedule**

The schedule for the coming week was informed as:

- The 5th IRG Meeting (23rd November) at Olympic Hotel;
- Possible visit to the pilot training course by another IRG member;
- Mr.Toru ISHIBASHI, Expert in Training Needs Analysis (22 November to 30 December);
- JICA Mid-Term Review Team (planned from 6th to 16th December ) that will include the meeting with TVTO: the appointment with Mr.Saberi had been set for the morning of 8th December; and
- Joint Coordinating Committee Meeting: 2nd February 2010 (Tentative): of which a concept of its membership shall be informed to CDC.

### **3. Closing**

- All the agenda mooted in this meeting will be reported and followed based on each member's duties.
- Next weekly meeting will be held on 23rd November at CDC.

-END-

## Minute of Meeting

Meeting at CDC Meeting Room

on 30th November 2009 (10:10-11:50 am) as Weekly Meeting between JICA and CDC

### 1. Attendance

CDC	2	Mr.Ebrahim Azad, Mr. Hassan Ghofran
JICA Project Team	6	Mr.Roger DeZilwa, Mr. Kunitoshi Saito, Mr.Toru Ishibashi Mr Imani Parviz, Ms.Nakako Ishimaru
TVTO	1	Ms. Parisa Jaymand

### 2. Discussions

#### Completion of the 1st Pilot Course

JPT reported that practical/theoretical component of Pilot program No.1 is due to conclude on the 25th November. Mr.Azard referred that evaluation on the program should be conducted carefully so that the lessons learned will be great inputs for the preparation for Pilot program No.2. JPT will submit a draft report to CDC in order to show the findings as well as basic concepts of evaluation for this model pilot training course very soon.

#### Preparation for the 2nd Pilot Course

With regard to the second pilot course, the proposed key milestones were pointed out as the table below shows.. It is stressed that the number of counterpart trainers be increased for participation in the 2nd pilot course. This has been raised with CDC for several times and Mr.Azard mentioned clearly that he acknowledged the importance of sufficient human resources being involved with JPT for introducing and implementing CBT and noted that CDC will start the necessary arrangement for this matter.

<b>Major Tasks</b>	<b>By</b>	<b>Schedule</b>	<b>Status</b>
Selecting skill set in consideration of IRG's opinion	JPT/TVTO and IRGs	Nov - Dec 2009	●
Assignment of Counterparts (CPs)	TVTO	Beginning/Dec 2009	
Translation of workbook by CPs	JPT/TVTO	Jan – Mar 2010	
Procurement of equipment if need arises	TVTO	Feb – April 2010	
Implementing "Training of Trainers" and "2nd Pilot Course"	JPT and TVTO	End of Apr – Beg of Sep 2010	

#### IRG meeting

JPT mentioned that a significant progress in selecting, targeting, and recruiting the members of IRG that may most fit the plans for the new training course. For 5th IRG meeting (held on 23rd November), JPT placed the opportunity as a relatively formal meeting but more importantly, both before and after this meeting, there are precise discussions continuously between TVTO and IRG. Thanks to CDC, the official invitation letters was sent to all the

participants on time and obtained the sufficient participation by the members.

In order to obtain sufficient support from industries for competency based training courses, it is clear that building trust among TVTO and the industries is far more essential.

As a result of the 5th IRG meeting, however, JPT experts could take the opportunity to ask for supports from the IRG, and also obtained their comments for the 2nd pilot training course: that is, provision of training equipments, acceptance of work placement, and provision of insurance in case of accidents on the trainees. JPT experts, Mr.Ishibashi has started to visit each participant for following up for more accuracy of data collection and analysis.

### **Work Schedule**

The schedule for the coming week was informed as:

- JICA Mid-Term Review Team (planned from 6th to 16th December ) that will include the meeting with TVTO: the appointment with Mr.Saberi had been set for the morning of 8th December;
- Mr.Motomura Yuichiro (Chief Advisor): 5th to 14th December.
- Joint Coordinating Committee Meeting: 2nd February 2010 (Tentative): of which a concept of its membership shall be informed to CDC.

### **3. Closing**

- All the agenda mooted in this meeting will be reported and followed based on each member's duties.

-END-

18th January 2010

## Minute of Meeting

Meeting at CDC Meeting Room

on 18<sup>th</sup> January 2010 (14:00-15:40 PM) as Weekly Meeting between JICA and CDC

### 1. Attendance

CDC and CPs	3	Mr. Ramak FARAH ABADI, Mr. Seyed Mohsen SALIMIAN Mr. Javad RAFATI
JICA Project Team	4	Mr. Tatsuya NAGUMO, Mr. Kunitoshi Saito, Ms. Maryam Akbari, Ms. Sara JAFARI
TVTO	0	

### 2. Discussions

#### Weekly report:

Since weekly meetings had not been held for more than one month due to changes in personnel and retirement, weekly reports were also not done, since the monthly report has been submitted. The JPT will provide weekly meeting from next weekly meeting.

#### 2nd Pilot Training Course:

The draft schedule network diagram of the second pilot training course was explained.

Mr. Farahabadi and the counterparts required more detailed schedule, as Mr. Farahabadi need it for the necessary administrative arrangements. The JPT agreed to prepare it.

The following are confirmed

- More localization after the textbooks arrive (through meetings with IRG)
- The learning resource should be translated before localizing with IRG.
- More customization should be done. before 23 April 2010
- It is recommended for TVTO to upgrade the counterparts' English competence

The detail of discussion is as follows.

- The JPT confirmed the units of competency have been already fixed with IRG.
- The counterparts showed their worry about the shortage of time for procuring equipments and preparing learning resources, as the number of units of competency increased from 6 to 21. We agreed to see the volume of training resource after Roger arrives on 23rd Jan, which Roger will bring some from Australia.
- Mr. Farahabadi suggested having more IRG meetings in order to localize the units of competency from Australia better and meeting with IRG members after CPs studies learning resource was recommended, as this could be good opportunity for TVTO to gain trust of industry people especially SAIPA.. The JPT explained that TVTO, as a governmental

agency, is to organize IRG meeting with support from the JPT concurrently while the JPT operate the second pilot course. Also the JPT promised CDC to provide information of the need survey (Mr. Ishibashi's report) with IRG members.

- The textbooks need to be translated before giving to IRG, and the customization will be done after translation.
- Because the counterparts need to review training materials and be able to communicate directly with foreign experts, the JPT suggested CPs should have more opportunity to read in English; however, Mr. Farahabadi wanted the counterparts to have more free time for their responsibilities in CDC. Mr. Nagumo suggested the necessity for upgrading the counterparts in 4 levels that should be balanced with each other: 1. CBT knowledge 2. Communication skills with IRG 3. English skill 4. Technical skills.
- In the beginning of Japanese fiscal year JICA experts will support the customization of units of competency through reviewing them.
- The framework of the second pilot course, assignment of the counterparts, training venue and using Workshop of SAIPA at TVTC No. 4 were confirmed.

#### **Schedule:**

The JPT explained Manning Schedule of the JICA Experts.

The JPT explained the Plan of JCC. Most probably, it is scheduled to be organized on 2nd of February 2010 (13th Bahman). The Agenda was reviewed. The expected participants were informed. 20-25 participants were estimated for the meeting. Mr. Farahabadi will discuss with Mr. Saberi about the conference room (auditorium type) in TVTO main building and the other participants that might attend from TVTO by 20<sup>th</sup> Jan (Wed).

#### **Any Other Business:**

CDC will assign CBT experts to review the manual after completion of developing them by the JPT. The review will be started after February 2010. The CBT experts from CDC will review by meeting session..

The JPT explained the schedule of follow up survey of pilot 1 and it was accepted by CDC. Appointment of interview with graduate who got a job have been done since 13<sup>th</sup> January (23 Dey) over phone. The graduates who have not got a job yet have been interviewed over phone only. Face to face interviews for those who got a job already will be done from 23rd Jan. (3 Bahman). Mr. Saito and the counterparts will implement this interview survey. After this survey, they will analyze the results.

Mr. Farahabadi (CDC) will write official letters to authorized dealerships to support interview survey. He will provide a copy of the letter to Mr. Saito upon request.

-END-

1<sup>st</sup> February 2010

## Minute of Meeting

Meeting at CDC Meeting Room

on 1<sup>st</sup> February 2010 as Weekly Meeting between JICA and CDC

### 1. Attendance

CDC	5	Mr. Ramak FARAH ABADI, Mr. Seyed Mohsen SALIMIAN Mr. Javad RAFATI, Mr. Ebrahim KHALILZADE Ms. Parisa Jaymand
JICA Project Team	6	Mr. Yuichiro MOTOMURA, Mr. Tatsuya NAGUMO, Mr. Roger DeZilwa, Mr. Kunitoshi Saito, Mr Imani Parviz, Ms. Maryam AKBARI, Ms. Sara JAFARI

### 2. Discussions

#### Developing Workbooks and 2<sup>nd</sup> pilot training course

All participants reviewed CP's work schedule for developing workbooks, which was discussed at the weekly meeting without Mr. Farahabadi's attendance last week. CPs' assignment for developing the workbooks was clarified with Mr. FARAH ABADI.

Mr. Farahabadi demanded the guideline for developing a workbook in CBT method. The JPT responded that the manual will include that.

Mr. Farahabadi also suggested that CPs should be given more time to develop their workbooks. Roger replied that the JPT brought the textbook for the CPs in the Automotive Mechanics and the workbooks. However, he said that there is no formula prescribing these Workbooks to be produced.

Roger mentioned that the CPs' inference of the workbooks from Australia is crucial in translating the workbooks and developing their own. Thus, in the next week refresher course the workbooks will be used as a model to explain to the CPs how to develop workbooks which are customized to the needs of Iran industry, and how to use the workbooks for their own goals. So, the central question will be about the process through which the workbooks which are customized to the needs could be worked out.

Roger also asserted that the 21 units are the basic components of a full mechanics course. However, it will be possible to train full mechanics in the level 3 training course in which 33 units will be included.

Mr. Rafati demanded that the CPs could use other Iranian resources in developing their own resources. In this regard, the JPT explained that there are useful resources in Iran; nonetheless, the difference between those resources is in the approach of CBT which is based on UC, Element and Performance Criteria, and that the final goal in this approach is that the trainee could achieve the competency. If those in Iran compose of all performance criteria, then, we can use them.

Mr. Farahabadi requested that a documentation of the methodology of JICA project will be provided for CDC, so that they will have a source to be referred to in future.

Mr. Farahabadi and the CPs referred to one of the issues in customization that is the misunderstanding of the concept of serviceman from the part of Industry. However, fortunately, in large-scale companies the concept is closer to the Australian CBT.

In this regard, the JPT suggested that the 2nd pilot can be an ongoing educational exercise in which the CPs can be the coordinators with Industry.

#### **CBT Refresher Course for CPs**

Mr. Nagumo clarified Mr. Farahabadi that all the CPs will participate in the refresher course (6-10 February 2010). He also requested for arranging a room for the workshop at TVTO not for a formal lecture but for a discussion.

#### **2-3. Joint Coordination Committee Meeting**

The date of JCC meeting was changed from 2nd to 3rd of February which was still tentative.

#### **2-4. Any Other Business**

One of the issues in the 18th January weekly meeting was Mr. Farahabadi and the CPs' concern regarding the level of training: this issue will be discussed with IRG after CPs develop similar workbooks to the workbooks from Australia.

-END-

5th February 2010

## Minute of Meeting

Joint Coordinating Committee Meeting  
on 3<sup>rd</sup> February 2010

Between TVTO and JICA Project Team For the Project for Strengthening the TVT  
Management Skills in TVTO

### 1. Attendance

#### TVTO

1	Mr. Mohammad Taghi SABERI	Deputy of Research and Planning
2	Mr. Alireza HATAMZADEH	Deputy of Training
3	Mr. Ramak FARAH ABADI	Director General, CDC
4	Mr. Naser SHAMS	Deputy of Advanced Skills
5	Mr. Amir.LARI	Monitoring and Evaluation Expert, Monitoring and Evaluation Department
6	Mr. Alireza Taherpour	KOICA advisor
7	Ms. Parisa JAYMAND	Office of Research and Planning
8	Mr. Hemmat Ali NAJIB ZADEH	Principal of TVTC No.4
9	Mr. Seyed Mohsen SALIMIAN	CDC
10	Mr. Ebrahim KHALILZADEH	CDC
11	Mr. Soheil SHAHRAKI	Principal of TVTC No. 18
12	Mr. Seyed Bagher AZIMIDOKHT	TVTC No. 18
13	Mr. Rouhollah GHASEMI	TVTC No. 18
14	Mr Hossein SOUSANAZAD	TVTC No. 18
15	Ms. Zahra MIRZADE MODARESI	Office of CDC
16	Ms. Leila FARHADI	Office of CDC
17	Ms. Zahra NASIRI MAHD	Office of CDC

#### JICA

18	Mr. Makoto ASHINO	Resident Representative, JICA Iran Office
19	Ms. Natsuko OZAWA	Project formulation Advisor, JICA Iran Office

#### JICA Project Team

20	Mr. Yuichiro MOTOMURA	Chief Advisor / Team Leader
21	Mr. Tatsuya NAGUMO	Vocational Training Management
22	Mr. Roger DeZilwa	Training Standard and Curriculum
23	Mr. Kunitoshi SAITO	Training Monitoring & Evaluation
24	Mr. Imani Parviz	National Consultant
25	Ms. Maryam AKBARI	Interpreter / Translator
26	Ms. Sara JAFARI	Assistant Project Officer

#### Observers

27	Mr. Kazuhisa FUJII	Second Secretary, Embassy of Japan
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## **2. Discussion**

### **Opening remarks by Mr. SABERI (Deputy of Research & Planning)**

Welcome by Mr. SABERI who started by telling that TVTO transferred the JICA Project to the Deputy of Research and Planning in order to unify management of the activities concerning the change of training approach in TVTO at the beginning of 1388 (April 2009). TVTO has also taken many measures to upgrade the training quality. Demand-driven strategy, increase in productivity and privatization are 3 key strategies upon which TVTO has based its activities. The counterparts (CPs), who have gained lots of experience by participating in the Project last year in order to unify technical aspects of the Project, have been relocated to CDC as experts in automotive area. The progress of the Project was well evaluated by the Midterm Evaluation Team from Japan. Moreover, communication with Industry in various occasions, especially at the Hotel Olympics where he attended, paved the way for a demand-driven system and provided more communication with industry. In this JCC meeting, the activities of the Project in the past year and plans of activities for next year will be discussed. The JICA Project Team and TVTO were evaluated efficiently by the Midterm Evaluation Team from Japan regarding the progress of the project. Many other experts of TVTO attended the seminar of CBT approach, presented by Roger De ZILWA and Kevin JACKSON, held on 9th December 2009 for the purpose of disseminating this approach. In order to take more effective measures to disseminate in the 2nd pilot course, Mr. HATAMZADE, the Deputy of Training, Mr. LARI, the Technical Deputy of Monitoring and Evaluation, and other CDC experts in CBT, participated in today's meeting.

### **2.1 Introduction by Mr. MOTOMORA**

Mr. MOTOMORA, the Team Leader of the JICA Project Team, continued by introducing Mr. FUJII, from Embassy of Japan, Mr. ASHINO, Resident Representative of JICA Iran Office, different stages of the projects and the persons responsible for each task.

### **2.2. Result of the Evaluation of the 1st Pilot Course**

Mr. SAITO gave the findings of the 1st Pilot Course Evaluation as follows.

#### **2.2.1. Completion course evaluation**

The trainees' completion rate of the 1<sup>st</sup> pilot course was 96% because one of the trainees did not complete 2 units of competency. The trainees' dropout rate was 14.3%, as 2 trainees out of 14 dropped out from the course. One trainee left in the 2nd week because his university courses overlapped with the pilot course. Another trainee left in the 7th week. He did not follow the direction of the trainers, and disturbed the flow of the class and finally he left by himself. The feedback from the trainees showed that the quality of the trainers was highly evaluated (=17.3 (20: very good, 15: bad)). Moreover, the feedback revealed that the trainees were not well informed of the course in advance. This should be improved for the 2nd pilot course. Learning resources and training materials were well evaluated (=15.9 and 14.8) because of the effort of the trainers. They had to use their personal equipment in the workshop, and divide the trainees in groups, assigning them different tasks, in order to overcome the problem of not having enough equipment.

## **2.2.2. Graduate trainees employment situation**

One graduate is employed as auto mechanic in SAIPA official dealership. Two are employed in automotive-related field but not as auto mechanic. One of these two works in the same SAIPA dealership as a receptionist, and the other has a marketing job in a company that produces training equipment for TVTC's. Both of these graduate trainees were found to use the knowledge they had acquired in the course. The graduate trainee, who has a marketing job, is looking for a job as an auto mechanic. 4 graduate trainees are not employed yet: 1 has decided to go to university, one intends to open his own garage, and the other two are still looking for job. 4 other graduate trainees work in the same companies they worked before, and two have been given more advanced tasks in their present jobs.

## **2.2.3. Follow-up survey**

In the follow up survey, which was conducted two months after the completion of the course, the JICA Expert and CPs visited the graduate trainees who have job as auto mechanic, or a related job. The 6 units of competencies were evaluated well based on how the graduates performed them according to the feedback from both graduates and their employers (=3.1 (3: good, 4: very good). In addition the overall satisfaction of the graduates by their employer was good (=3.1). Finally, the employers were pleased with the follow up survey from TVTO and believed TVTO regarded the training very serious.

## **2.3. Proposed framework of the pilot course (2nd cycle)**

### **2.3.1. Venue of the 2nd pilot course**

Mr. NAGUMO stated that the 2nd pilot course would be implemented in TVTC4 based on an agreement with Mr. SABERI, and Mr. FRAHABADI at a meeting reached on 21st December 2009. He also mentioned that a SAIPA workshop should be available since the roof is high enough to install lifts.

### **2.3.2. Content of the course**

21 units of competencies, mostly from certificate 2 in automotive technology, have been selected related to Retail Service and Repair in Automotive field.

### **2.3.3. Course duration**

Course duration will be roughly 3.5 month (1 month course in workshop + 0.5 month industry attachment + 2.5 month course in workshop + 0.5 month industry attachment)

### **2.3.4 Expected trainers and trainees**

The same trainers from the 1st pilot course are expected to be trainers for the 2nd pilot course and the trainees are expected to be novice although this matter needs to be further discussed. The number of trainees is about 10-15.

### **2.3.5. Schedule of the 2nd pilot course**

The needs survey for the 2nd pilot course was conducted, the result of which led the selection of the skill set for the 2<sup>nd</sup> pilot course. Identifying the equipment should be done in February.

Procurement of the equipment should be done in March and April. Preparing training materials should be taken place from January to April, the training of the trainers in May, and recruitment of the trainees in June. The course will be implemented from July to September, and the monitoring and evaluation will be conducted from July until October.

#### **2.4. The issues to be addressed for expansion of the model**

Mr. MOTOMORA introduced 5 items to be discussed and requests the participants to share any opinion and suggestions. Mr. DE ZILWA started by explaining the first item.

##### **2.4.1. Fast tracking in selecting the units of competencies from other countries**

Mr. DE ZILWA mentioned that the expectation is that the core training in technical fields is the same in all countries. In Australia, it has taken 25 to 30 years to develop competency standards with what has been referred to as CBT approach. And if the units of competencies are selected from Australian training package, and validated by industry personnel, they will be suitable to be used in training in Iran, and it is believed that this assumption is valid because the IRG that have been formed with TVTO, have selected 21 units, leading to a job, out of the units of competencies of Australian automotive training package.

##### **2.4.2. Establishment and operation of IRG**

Units of competencies should come from appropriate industry personnel, so called IRG. IRG needs a coordinator from TVTO who is himself an expert in the field. Also, clear instructions for the establishment and performance of IRG should be provided.

##### **2.4.3. Qualification/certification level**

The qualification/certification should not be based on the duration of the course, but on the job expectation so that the employer knows what to expect from the graduate with confidence and the graduate knows what he should be expected from the employer with confidence.

##### **2.4.4. Reinforcing the training**

In order to implement the course, some points should be taken into consideration. One is the level of the trainer who should, at a minimum, be familiar with the units he wants to deliver. The other issue is that if the training is expected to be at the same level of the industry standards, the equipment should be at that level too, and since technology is moving at a very fast pace, no training organization, even in other countries, is able to keep its level of equipment up to date. It is important that the training organizations form partnership with industry and where training cannot be provided because of lack of equipment, the training takes place in industry. Another issue is that the expectation of industry is always high and it expects training related to all types of new cars. Although this may not seem to take place, some credits, from the units of competencies covered, could be transferred to work place, so that the graduates do not have to go over the same units again.

##### **2.4.5. Redeveloping Quality assurance and continuous improving system**

Mr. SAITO continued to address the issue by pointing to the fact that he realizes that TVTO presently has a Monitoring and Evaluation (M&E) system. However, since the focus of M&E in CBT approach is different, another system of Quality Assurance and a continuous improving

system are required to be developed in TVTO and TVTC level. The M&E conducted by the trainers revealed that they are fully capable to analyze feedback data and provided that they are given appropriate evaluation tool and sustainable guidelines, they are able to conduct that far better. The guidelines should clearly define performance criteria with indicators.

Mr. SABERI continued here by introducing the participants who had just joined the meeting and mentions that KOICA project counterparts would join JICA Project with arrangements done with the Training Department.

## **2.5. Q&A Sessions**

Mr. HATAMZADE, the Deputy of Training in TVTO requested Mr. NAJIBZADE, based on the fact that TVTO's goal is to develop and disseminate this model in all its training management, to mention 3 good points in this project that is not done in TVTO projects to which Mr. NAJIBZADE did not give a clear answer later on.

Mr. HATAMZADE also mentioned that TVTO surveyed 15,000 graduate trainees. According to their statistics, 22% were employed, while 25% trainees were employed in this project. He wants to know if the 3 % difference between these two figures is the result of differences in the approach.

Mr. SAITO answered that the pilot course included only 6 units of competencies that do not make up a skill set comparing to TVTO courses that lead to a job. Mr. DE ZILWA further explained that these 6 units of competencies have been selected from a total 33 units of competency from automotive training package. The employment rate surprised him since these 6 units are too few to lead to a job, and the course aim was to develop a model, but not employment. 2nd pilot course, with 21 units of competencies, is expected to provide much better results.

Mr. HATAMZADE added that if the statistics are not objective, the results should not be mentioned. Mr. MOTOMORA added here that TVTO conducted follow up survey for 15000 graduates, while the Project conducted it for only 12 graduates and therefore those two figures cannot be compared simply. The statistics are not so important, but the experience and lessons learnt are important in this piloting concerning the implementation process.

Mr. SHAMS mentioned that in the slides, the question "Who should the JPT talk to?" was seen. He wanted to know if a managerial issue, out of the meeting issues, exists.

Mr. De Zilwa replied to this question that the important thing is a system with ongoing sustainability and to reach this end, managers in advanced levels should be talked to in order to convey to them the findings and the lessons learnt.

Mr. SHAMS asked again if there were any inefficiency in what the trainers had to do since the trainers' assignments are clearly shown in the table and everybody know who to talk to in the managerial level.

Mr. DE ZILWA responded that the counterparts have been very effective so far in the pilot course as a micro level and with related methodology. However, as the model will be implemented in a much wider scale in the future, the issues of both positive effects and risks should be transferred to managers' level. If TVTO prefer the direction which the Project leads, manager level should be involved.

Mr. SABERI added that the project is like an embryo and it is growing. The managers invited

should be involved so that the strengthening of TVT management can be focalized, and he hoped that with the Deputy of Training and the Deputy of Advanced Skills, the next phase of the Projects will be implemented much well than the first phase. He then mentioned that Mr. AZAD, the ex-technical supervisor of the Project, was retired and Mr. FARAHABADI is presently the technical supervisor of the Project, and because of his job background as industry supervisor in CDC, he has a good understanding and relationship with industry, which helps the project to develop more relationship with industry.

Mr. LARI asked 1) how the "learning resources" were highly evaluated, 2) what does "due to the effort of the trainers" mean and 3) how this leads to a higher evaluation.

Mr. SAITO replied that the evaluations came from feedback from the trainees only, and not from industry. However, some trainees, who evaluated the training equipment well, changed their opinion after they started working.

Mr. LARI then asked if the content of the 1st pilot was proved to be suitable before delivery.

Mr. SAITO answered the 6 units of competencies cannot be said to be good since they are not a skill set, but the elements of each can be said to be good. Mr. DE ZILWA also agreed that these 6 units together cannot be said to be good or not, but the content of each was related to the Iranian industry.

Mr. LARI also cast doubt on the statistical figures saying that they cannot be proved. Mr. SAITO responded that these were only 6 units of competency and the evaluation is not the evaluation of the course but piloting M&E method with a new approach. He continued that these figures are actual figures resulted from trainees feedback. Mr. LARI asked if Mr. SAITO accepted that the figure did not have credit. Mr. IMANI interrupted that the figures are real and the graduates can be visited anytime in case there is a doubt. He also agreed that the method of doing this was important. Mr. MOTOMURA here mentioned that the goal of the pilot was not evaluation but the how to disseminate new approachset is important since the pilot course was focused on only a micro level so far, and that the result of 15000 trainees cannot be compared to 12.

Mr. LARI then asked if the content of the course was validated or not, but he said the JICA Project Team can answer him later. Also, he wished to know how the trainees' level was evaluated.

Mr. DE ZILWA replied that the trainees' competency was assessed constantly upon the fact that if they can perform the task or not by the trainers. He then differentiated between evaluation and assessment. The former is done from outside of the system and is the evaluation of the system and methodology. The latter is done by the trainers. But if the trainers' level is the industry standards, and if the instructions are not clear enough or they do not have related tools, assessment will face problems and that is why it has been addressed as an issue and needs to be discussed.

Mr. SABERI requests Mr. FARAHABADI to invite Mr. LARI to join technical committees for more discussions.

Mr. KHALILZADE requests that the trainees should not be left alone after the pilot course and they should be involved in the next pilot courses so that they become full mechanics. He then gave some accounts of the midterm evaluation and follow up survey and how the counterparts conducted them.

Mr. NAJIBZADE mentioned that enough budgets should be allocated to TVTC so that they do

not face problems during the 2nd pilot course, and that the workshop should be well equipped before the course starts.

Mr. SABRI answered that this should be discussed in a meeting with Mr. FARAHABADI and the JICA Project Team should hand in their requests in advance so that TVTO has enough time to procure them. He also requested Mr. SHAHRAKI to join the technical committees as a representative. Then he asked the JPT to decide the agenda of at least the next 5 technical committees so that he can arrange for the presence of the related manager based on the issue to be discussed in the session.

Mr. SHAHRAKI asked if it would be possible that TVTC7 can be used for pilot courses in the future since this center is designated for automotive. Mr. SABRI answered he would think about this matter later.

Mr. ASHINO mentioned that this is an important meeting since activities of the first half of the project was discussed, and the next half of it was reviewed. His concern was sustainability of this new approach after the project. By the end of the project, 2 pilot courses have been implemented and manuals will have been developed but the important thing is the strengthening of the TVT management, and more managerial involvement should be encouraged for the consistency of the findings after the end of the project.

Mr. SABRI concludes the session by saying that in joint projects, mutual consensus is necessary, and the requirement is that it should move through expertise channel. Presently the technical committees are conducted by trainers, and some more will be added to them. He said there is still not the same understanding in the technical aspect by the two sides. This does not mean there is problem in the activities but that they need more explanation. The meetings like JCC are welcomed to be held every season to convey the findings. Mr. FARAHABADI is the technical supervisor of the Project and any related issues should be referred to him. Ms JAYMAND is the coordinator and has been relocated temporarily to CDC building for smoothing of the progress of the project. Another point is that any correspondence should be sent to Mr. SABRI first as the project manager and he will send these letters or other things to related people.

-END-

18th February 2010

## Minute of Meeting

Meeting at CDC Meeting Room

on 17<sup>th</sup> February 2010 as Weekly Meeting between JICA and CDC

### 1. Attendance

CDC	3	Mr. Ramak FARAH ABADI, Mr. Ebrahim KHALILZADE Ms. Parisa Jaymand
JICA Project Team	6	Mr. Roger DeZilwa, Ms. Nakako Ishimaru, Mr Imani Parviz, Ms. Maryam AKBARI, Mr. Ramin BAGHER, Ms. Sara JAFARI

### 2. Discussion

#### Importance of cooperation with Industry for the 2nd Pilot Course

Mr. Farahabadi and Mr. Khalilzadeh mentioned that Air Toya Company wanted to have a meeting with JICA that could be in the next week.

Roger stated that it is not useful just to have meetings, but the CPs should meet with the industry representatives and explain the project objectives, the CBT approach, the UCs and the expected results in the 2nd pilot course. Also, according to Mr. Imani, the industry companies have approved UCs. Moreover, in the last 2-3 months of the 1st pilot course the content and units of pilot 2 were discussed with the IRG and some of the IRG members had recommendations regarding the technical issues in the UCs. Mr. Imani stressed that the importance to start visiting the Industry regularly from now on.

#### Report on Refreshers' course

Roger reported the refresher course in the last week. He was satisfied with the progress of the CPs and asserted that after finishing the project we will have certainly 4 and hopefully 8 CPs who will have a good understanding of the CBT concept, and this will have good results for TVTO.

#### Procurement of Equipments

JPT have got the list of equipments in TVTC 4, based on which the New Automotive expert from Australia is going to send his version very soon. On the other hand, based on the letter from Mr. Ssaber, the CPs are supposed to make suggestions if any by studying the WBs.

Ms. Ishimaru remarked that TVTO will be informed about Ed's suggestions. She also reminded about considering the procedures and deadlines for procuring the equipments to prevent the future problems.

Mr. Farahabadi promised that the procedures will be done very soon.

### **Work plan for the Customization of UCs (Translation and Development of the WBs)**

Ms. Ishimaru referred to the schedule of CPs' assignments and the list of UCs and CPs' responsibilities for each unit. She maintained that at this moment the concentration is on translation of the WBs. Furthermore, she mentioned that this assignment is part of the CBT approach customized to Iran, and also part of the process of strengthening the capabilities of the CPs as explained by Roger referring to the refresher course. Thus, the objectives of translation assignment are both to prepare for the 2nd pilot course and to increase the capabilities of the CPs. In this regard, the estimated bulk of translation for each CP is 150 pages, including pictures and tables.

It was asserted by JPT that because translation is part of the customization process in Iran and that the CPs may use Iranian resources for developing their own curriculum.

Mr. Farahabadi confirmed that Ms. Jaymand in CDC would monitor the progress of the CPs' assignments.

In the next weekly meeting with CDC on 24<sup>th</sup> February, the counterparts will join to report the progress of their work.

-END-



## Minute of Meeting

Meeting at CDC Meeting Room on 22<sup>nd</sup> May 2010 for a periodical meeting

### 1. Attendance:

CDC	2	Dr. Khanifar, Mr. Hakimpour
JICA Project Team	6	Mr. Motomura, Mr. Nagumo, Mr. De Zilwa, Mr. De Gabriele, Mr. Imani, Mr. Bagher

### 2. Discussions

#### Major Tasks in this Fiscal Year

- Mr. Motomura addressed the session about the introduction of CBT and how it is going to be conducted by the Project in this fiscal year. The main components of project implementation described as '*the tools*', '*human resources*' and '*institutional improvement*' were discussed and made clear.
- Dr. Khanifar acknowledged the importance of these components and confirmed that the 'CBT Working Committee' will be formed to enhance the process of introducing CBT in TVTO in this fiscal year and beyond.

#### Schedule of this fiscal year

- The time table of the Project was presented and discussed.

#### Issue to be addressed

- The JICA Project Team (JPT) reminded CDC about provision of a project office in CDC for the JPT and Dr. Khanifar assured the JPT that it will be provided the day after the meeting (23<sup>rd</sup> May).
- The JPT mentioned the equipment needed for the second pilot course. Mr. IMANI provided Dr. Khanifar the information of the budget allocated to the Project and Dr. Khanifar assured that he would personally attend to this issue.
- Dr. Khanifar suggested that the Project could implement the course at ITC rather than at TVTC No.4. He mentioned that after getting the confirmation from ITC and the JPT, he can arrange for the establishment of the project in ITC. Dr. Khanifar consulted Dr. Ghofrani on this matter by telephone on the spot and it was decided that the JPT and CPs will carry out the pilot course at TVTC No. 4 and the JPT works both in the office within TVTO and a new office in CDC.
- The issue of providing lunch for both the trainers and the trainees during the pilot course was discussed. Dr. Khanifar mentioned that 25 meals would be provided for the trainers and the trainees when the pilot course starts.

- The JPT requested that the CPs would fully assigned to the JICA Project. Dr. Khanifar promised that it would be considered as a high priority. It was noted that with the supervision of Mr. Imani they will be fully assigned to the JICA Project.
- Lack of office equipment was addressed as an issue. It was mentioned that the CPs are in dire need for keyboards, mouse and IP addresses. Dr. Khanifar acknowledged these issues and mentioned that they are expecting the delivery of the equipment and that full connectivity would be established as soon as possible
- Finally JPT referred to the last agreement between JICA and Mr. Fara Habadi about the typing of trainee workbooks. Dr. Khanifar reassured the JPT that CDC will provide typing assistance for the JICA project.

-END-

24 May 2010

## Minute of Meeting

Meeting at Dr. Ghofrani's room on 24th May 2010

### 1. Attendance:

TVTO	1	Dr. Ghofrani,
JICA Project Team	4	Mr. Motomura, Mr. Nagumo, Mr. Imani, Mr. Bagher

### 2. Discussions

- Mr. Motomura reminded Dr. Ghofrani about provision of a project office in CDC for the JPT. Dr. Ghofrani mentioned that he has provided his own personal room in CDC and he will attend the faster process of the moving of furniture.
- Mr. Motomura mentioned the necessary equipment for the second pilot course. Mr. Imani provided Dr. Ghofrani the information of the budget allocated to the Project and Dr. Ghofrani assured that he would personally attend to this issue.
- Dr. Ghofrani repeated Dr. Khanifar's original suggestion that the Project could implement the course at ITC rather than at TVTC No.4. He mentioned that it would be more beneficial for both parties due to the better atmosphere and facilities in this center. However, he mentioned that this matter should be consulted in the Consul of Managers and then decided and in this decision making process the perspectives of JPT will be accounted.
- Mr. Motomura mentioned that although he recognises the advantage of using ITC, he believes that TVTV No.4 will be more suitable for implementing the pilot course considering the objective of the Project.
- Both parties agreed to continue discussion on the pending matters at later occasions.
- Mr. Motomura invited Dr. Ghofrani for a dinner. Dr. Ghofrani mentioned that he will try his best to attend.

## Minute of Meeting

Meeting on 25<sup>th</sup> August 2010 at Deputy of Technical and Training Office

### 1. Attendance:

ITC: 1 Mr. Bajulvand

JICA Project Team 5 Mr. NAGUMO, Mr. DeGabriele, Mr. IMANI, Mr. SAITO, Ms. JAFARI

The JICA Project Team (JPT) presented CBT implementation strategy in ITC to Mr. Bajulvand and the main points were discussed as follows:

تیم پروژه جایکا (JPT) استراتژی اجرای سیستم CBT در مرکز تربیت مربی (ITC) را طرح کرد و نکات اصلی آن را مورد بررسی قرار داد:

### About Working Committee:

### کمیته کاری:

- We will start the working Committee with automotive areas, since current CPs are available to expand CBT through ITC
- As for the Working Committee members, Mr. Bajulvand suggested the Head of Pedagogy instead of the Deputy of Logistics and Administration. His suggestion was accepted by the JPT. The revised members are;
  - Deputy of Technical and Training
  - Head of Pedagogy
  - Deputy of Research and Planning
  - Head of Instruction
  - Selected representatives from JICA counterparts
  - Anybody else that this group feels would add to the successful operation of the Committee
- The first Working Committee meeting will be organized on 4<sup>th</sup> September 2010 (13 Shahrivar 1389), 10:00 AM. Invitation letters will be sent to the committee members.

- ما کمیته کاری را در بخش اتومبیل آغاز خواهیم کرد، زیرا بسط و گسترش CBT در ITC توسط مربیان کنونی امکان پذیر است.
- آقای باجولوند پیشنهاد کردند تا جهت اعضای کمیته کاری، رئیس پداگوژی (علوم تربیتی) جایگزین معاونت اداری و پشتیبانی شود. پیشنهاد ایشان مورد پذیرش JPT قرار گرفت. اعضا پس از تجدید نظر به شرح ذیل می-باشند؛
  - معاونت فنی و آموزش
  - رئیس پداگوژی (علوم تربیتی)
  - معاونت پژوهش و برنامه ریزی
  - رئیس اداره آموزش
  - نمایندگان منتخب از مربیان ایرانی همکار پروژه جایکا
  - هر فرد مسئول دیگری که این کمیته برای اجرای موفق-تر اهداف خود لازم می-بیند
- اولین جلسه کمیته کاری در تاریخ 4 سپتامبر 2010 (13 شهریور 1389) ساعت 10 صبح

## About CBT Workshops for ITC Trainers:

- The CBT workshops will be implemented by CPs for 40 ITC trainers. (2 groups of 20).
- The general training course of CBT methodology will be started on the last week of Ramazan for 3 days (5, 6, 7 September 2010) for the first group and on the following week for the second group. The time of the workshops will be from 8:00 am to 1:00 pm.
- To change recruitment of trainers: new trainers coming to the system (ITC) will ideally have industry experience

End-

## کارگاه آموزشی CBT برای مربیان ITC:

- کارگاه آموزشی CBT توسط مربیان ایرانی پروژه برای 40 مربی مرکز تربیت مربی (در 2 گروه 20 نفری) تشکیل خواهد شد.
- دوره آموزشی عمومی (شناخت اصول و روش CBT) در هفته آخر ماه رمضان به مدت 3 روز 16، 15، 14 شهریور (89) برای گروه اول و هفته دوم برای گروه دوم تشکیل خواهد شد. زمان کارگاه ها 8 صبح تا 1 بعدازظهر می باشد. سایر پیشنهادات:
- تغییر در شیوه جذب مربیان، بدین معنی که مربیانی که از این پس وارد سیستم ITC می شوند دارای تجربه صنعتی باشند

## **Minute of Meeting**

Meeting on 4<sup>th</sup> September 2010 at Deputy of Technical and Training Office

### 1. Attendance:

ITC: 3 Mr. Bajulvand, Mr. Mokarami, Mr. Karimi

JICA Project Team: 7 Mr. NAGUMO, Mr. DeGabriele, Mr. DeZilwa, Mr. IMANI, Mr. SAITO, Mr. BAGHER, Ms. JAFARI

TVTO: 2 Mr. RAFATI, Mr. KHALILZADEH

### **The Roles of Working Committee**

JPT suggested the roles of working committee as follows:

- 1) Selection of additional committee and sub-committee members to take responsibility for specialist areas
- 2) Conducting workshops for ITC staff in CBT methodology and implementation
- 3) Selecting departments and individuals to participate in CBT
- 4) Provide policy input/advise to TVTO in relation to implementing CBT methodology nationally.

Both parties agreed the above roles in principals. In addition to the above, ITC showed their interest to discuss on how to improve trainers' industry attachment training in the committee.

Especially 4) Provide policy input/advise to TVTO in relation to implementing CBT methodology nationally was discussed further. The following shows points of further discussion in the meeting.

- ✓ CBT system is a national approach to be formed within National Skills Organization and the system of developing competency standard should be changed for CBT system from current system, in which developed by CDC in TVTO.
- ✓ However the role of ITC is limited. ITC can provide leadership to trainers in all over the country, but does not have authority to develop competency standards and just follow competency standards developed by CDC. In other words, ITC can only advise by transferring knowledge and methodology to TVTO, but not establish policy.
- ✓ To strengthen this role of the committee, the followings were suggested;
  - Submit a project report to the new TVTO president. Mr. Motomura can do this in his next assignment;

- Mr. Teymouri can explain importance of CBT implementation to the new TVTO president (Mr. Pour Abbas).
- Strengthening linkage between CDC and ITC through CPs, who belongs to CDC and will be able to participate in the committee as representatives of CDC before and after completion of the project.

### **Other discussions**

- It was suggested by Roger that having the experience of Australia in mind, continuing the project up to certificate 3 and diploma it can be illustrated better how to expand CBT.
- It was suggested by Mr. Bajoulvand that the Committee can make documentation so that ITC can use it after completion of the project
- One of the functions of the Committee can be to implement CBT in provinces
- Better to purchase other training packages from Australia, to make ITC trainers to use it and to have industry attachment before JICA experts leave Iran

### **Selecting departments and individuals to participate in CBT**

- It can be suggested that ITC, Deputy of Training and Deputy of Research and Planning work together so that defining duties for ITC and other deputies will pave the way for implementation of CBT nationally.

### **Workshop**

- JPT will organize the workshop, upon request from ITC, about CBT methodology and implementation for the 1<sup>st</sup> batch ITC trainers (around 20 trainers) for three days (5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> of Sep 2010), from 8:30 AM to 1:00 PM.

### **Schedule of Meeting**

- We shall organize the meeting every Saturday from 10: 30 AM to 12: 00 AM.

-End

## Minute of Meeting

Meeting on 6<sup>th</sup> September 2010 at TVTO

Attendance:

TVTO: Dr. GHOFRANI

JICA Project Team: Mr. NAGUMO, Mr. IMANI, Ms. JAFARI

### 1. Progress of the Project

- Mr. Nagumo submitted Dr. Ghofrani both the final version of the third progress report and the summary of the monthly report for July 2010 in Farsi. Mr. Nagumo also explained the progress of the project.

### 2. Schedule of the Project

- Mr. Nagumo explained to Dr. Ghofrani about the schedule of the project as follows. Dr. Ghofrani confirmed the schedule.

#### ✓ **Manning Schedule of Experts:**

Mr. Toru ISHIBSHI:	9 <sup>th</sup> Sep - 15 Oct
Mr. Yuichiro MOTOMURA:	16 <sup>th</sup> Sep - 23 <sup>rd</sup> Sep
Ms. Nakako ISHIMARU:	27 <sup>th</sup> Sep - 26 <sup>th</sup> Nov

Dr. Ghofrani agreed to arrange a meeting between TVTO president and Mr. Motomura during his stay, 19<sup>th</sup> to 21<sup>st</sup> September 2010.

- ✓ **JICA Terminal Evaluation Team from Tokyo, Japan:** The team will visit TVTO from 24<sup>th</sup> of October to 2<sup>nd</sup> of November to evaluate the Project. JPT will submit their detailed schedule to Dr. Ghofrani.
- ✓ **Joint Coordinating Committee (JCC) Meeting between JICA, TVTO and JPT:** Dr. Ghofrani agreed to have JCC meeting on 1<sup>st</sup> November 2010.

### 3. Counterparts

- Dr. Ghofrani agreed that the CPs would stay at ITC one week more after the completion of the pilot course so that they would work with Mr. Saito on monitoring and evaluation.
- The CPs will have weekly meetings with Mr. Saito for two weeks after they come back to Tehran.

### 4. Working Committee

- The first W.C. meeting was held on Saturday 4<sup>th</sup> September 2010 and will be held regularly every Saturday at 10: 30 AM.
- Dr. Ghofrani agreed that he and Dr. Khanifar would attend the next W.C. meeting; however, since it is still tentative in Iran Parliament to announce the next Saturday as national holiday, in case of being a holiday JPT will notify Dr. Ghofrani of the postponed date.



## **Minute of Meeting**

The 2<sup>nd</sup> Working Committee Meeting on 18<sup>th</sup> of September 2010 at ITC

Attendance:

ITC: 1 Mr. BAJULVAND

JICA Project Team: Mr. MOTOMURA, Mr. NAGUMO, Mr. IMANI,  
Mr. DEZILWA, Mr. DEGABRIEL, Mr. ISHIBASHI,  
Mr. SAITO, Ms. JAFARI, Mr. BAGHER

Presentation of the proposed “Plan for sustainable expansion of CBT” was done by Mr. ISHIBASHI (See the attachment). The main issues discussed include:

- The Project has been conducting the pilot training course for half of certificate 2. Another half is supposed to be accomplished in 2011 by TVTO.
- JPT explained that JPT developed the Manual and the last part of the manual includes plan, role and responsibility of each section in TVTO regarding CBT implementation. JPT also explained that TVTO can implement higher-priority training such as building construction after auto motive.
- Mr. Bajulvand suggested that an internal monitoring team rather than the CPs who had been involved in the delivering the course should monitor both the pilot training course and the Project itself to identify problem instantly.
- Replying to this suggestion, JPT explained that what CBT system could apply for the text is industry feedback: whether or not a trainee achieved a competency.
- Mr. Bajulvand the 3 CPs will most probably fail to sustain CBT
- Mr. Bajulvand suggested including other organizations to sustain CBT and encourage competition among them. That will help better quality of the project. We have only three CPs now and if one CP leaves, the whole effort will be failed.
- Mr. Bajulvand promised to explain to the representative of TVTO president and Mr. Khanifar that due to a number of problems including relocation of the Project from TVTO to ITC and not enough sections being involved now from TVTO, TVTO need to consider how to sustain the outcome of the project, that is, ITC will make a proposal to TVTO for one year extension of the project,
- Mr. Bajulvand requested JPT for organizing a CBT seminar for trainers of private institutions, in order to expand the CBT system beyond the governmental

organizations. Both parties agreed to organize the seminar after 5<sup>th</sup> November 2010.

- For a good report about the project, Mr. Bajulvand needed all documents of the project including the initial agreement between JICA and TVTO in order to discuss the issues in his meeting with Mr. Khanifar. Mr. Nagumo will have a meeting with Mr. Bajulvand to give him a brief explanation for each document.

Other Issues:

- Mr. Bajulvand referred to the meetings he had with JICA Iran office in which it was proposed by JICA Office to conduct training in Afghanistan and the border cities. ITC is waiting for the result.
- There were 6 courses proposed by Japan Government to be conducted in Iran based on training needs of the country especially in building construction. The correspondences were done and ITC wants to know about the final decision.

## **Minute of Meeting**

The CP Meeting was held on 26<sup>th</sup> of September 2010 at ITC

Attendance:

ITC: 1 Mr. BAJULVAND

JICA Project Team: Mr. NAGUMO, Mr. IMANI,

The main issues discussed include:

- **IRG Meeting:** Both parties agreed that JICA Project Team (JPT) will organize Industry Reference Group (IRG) meeting from 11 AM to 12:30 on 29<sup>th</sup> Sep (Wed). Mr. BAJULVAND accepted to request Mr. Teimoori to attend on it. Proposed agendas from Mr. Nagumo were 1) report of the second pilot training course; and 2) present the Manual.
- **Presentation of the Manual developed by the Project:** Mr. Nagumo explained the composition of the Manual developed by the Project to Mr. Bajulvand. Both parties agreed to organize a meeting for JPT to present the Manual to TVTO key stakeholders. The tentative schedule is 6<sup>th</sup> Oct (Wed). JPT requested Mr. Bajulvand to invite Dr. Ghofrani, Mr. Khanifar and Mr. Teimoori to attend. Mr. Bajulvand accepted to invite them. Mr. NAGUMO submitted the draft version of the Manual to Mr. Bajulvand.
- **JICA Terminal Evaluation Team:** Mr. Nagumo submitted the tentative schedule of the JICA Terminal Evaluation Team. He also explained the history of the Project in detail, showing the Record of Discussion (R/D) and Minute of Meeting (M/M) signed on April 2007 and Minute of Meeting on Midterm Evaluation signed on December 2009.
- **A CBT seminar for private management division:** Both parties confirmed to organize this seminar after 6<sup>th</sup> November. The number of participant will be more than 200. Mr. Nagumo will discuss with other members of JPT how many days are appropriate for this workshop. The content is general CBT induction course.

End

## Minute of Meeting

Meeting at 17th October 2010 at ITC

### Attendance

ITC: 1 Mr. BAJULVAND, Mr. MOKARAMI (Research & Planning Department) , Mr.EMADI(Instruction Office)JICA Project Team:  
Ms. ISHIMARU, Mr. IMANI, Ms. JAFARI, Mr. BAGHER

- **Lobby on CBT approach:** Mr.Bajorvand shared that the efforts he has taken to report to President on the importance of CBT approach and JICA project has made fruits. He also had a presentation at the national seminar on TVT held at ITC last weekend, which had good attentions from the participants.
- **Audio-visual documentation of Project:** Mr. Karimi and Mr. Bajulvand suggested making a video of the results and progress of the project. It will include the interviews with the trainees and stakeholders and shows a visual concise documentation from both pilots 1 and 2. The objectives are: to make a better documentation of the project for future references, to provide a better understanding for the managers, and to enable ITC (Mr. Bajulvand) to connect the present project with the previous ones, e.g. the multimedia JICA project.
- **Final Review Mission:** The request letter to TVTO from JICA's for arrangement was received and referred to Dr. Rostami. For the preparation of this, Dr.Rostami is planning to have a meeting on 19<sup>th</sup> October asking for the attendance by all the stakeholders of JICA project team. Mr. Bajulvand suggested to have a meeting with JICA Team one day ahead, reviewing the problems and obstacles that the project team had to encounter, things that distorted the genuine objectives foreseen from the initial stage.
- Mr.Bajorvand refers the name of Chief Adviros, Dr. Parand as the person closely work with President right now.
- It was suggested whether JPT would present the problems within TVTO management and training system:e.g., why TVTO is still following its old ways of making standards and why people in charge did not accomplish what they were supposed to do.
- Ms. Ishimaru suggested that it would be more effective to mention about the progress of the project in the given conditions. Also, the section in the manual for recommendation for future plans and for expansion of CBT system will be useful.
- Mr. Bajulvand held that discussing the shortcoming will be a lesson for future projects, so that there will be a clear understanding in regard for the appropriate venue for training projects.
- **Seminar on CBT system in November:** The scheduled was confirmed as 7<sup>th</sup> November 2010 (16 Aban 1389). The seminar is aimed for private training institutions at ITC, and the expected number of participants would be 60, not 200 as

planned originally. The program will include the whole CBT process from the standards-making to evaluation.

END

## Minute of Meeting

Meeting at 6<sup>th</sup> November 2010 at ITC

### Attendance

ITC: Mr. BAJULVAND, Mr. KARIMI (Research & Planning Department) ,  
Mr.EMADI(Instruction Office)

JICA Project Team: Mr.MOTOMURA, Mr.NAGUMO, Mr.DeZilwa, Mr.DeGabriele, Ms.  
ISHIMARU, Mr. IMANI

- **Lobby on CBT approach:** Mr.Bajorvand reported that Mr.Parand, Deputy of Training of TVTO, has been informed of the JICA project and about the CBT approach.
- **ITC's plan for the future:** ITC is now planning to implement the training course for the remaining 10 UOC in the coming month. It is scheduled that 11 instructors for each speciality will be selected to be responsible for each UOC. Along with ITC, the counterparts of JPT (3 instructors) will supervise the process of operation. ITC asked the JPT members for a few experts to extend their stay for further supports. In this regard, ITC asked about the current status of workbook development for the remaining 11 UOC and estimated time necessary for translation/development of workbooks.
- **Suggestions by JPT for the plans of ITC:** Mr. Motomura appreciated the initiatives of ITC for the future plan. However, he also clearly mentioned due to the conditions of contract between JICA and PADECO, no experts can extend their stay as of now. Thus, it is highly recommended that ITC submit an official request letter for further supports with concrete specification of request to JICA. He also mentioned that in case ITC would take such supports considered as needed seriously, he could convey the message to Mr.Konishi and the director of JICA HQ when he meets them on 16<sup>th</sup> November. In addition, Mr. DeZilwa noted that for these plans to be successful, the considerations and appropriate arrangement for administrative supports to the instructors are crucial as well. Mr. Saito and Mr.DeGabriele also emphasized that it is important that ITC will provide opportunities to assess the competencies covered in the second Pilot Training Course since some of the trainees seemed to develop the competencies which had not achieved as of the training duration.
- **CBT video production:** Based on the suggestions by Mr. Karimi and Mr. Bajulvand, it is reported that JPT has started discussions with the video director of ITC. Rather than making a general introduction of CBT, the video would include more practical aspects such as how to implement CBT. The program is consisted of five (5) parts:

CBT definition; first-track approach; development of curriculum; establish quality assurance system (Monitoring and Evaluation); and implementation in Iran. Mr.Motomura commented that since this development of video production idea by using the facilities assisted by JICA in past would be greatly welcomed by JICA if it'll be referred in the request letter by ITC.

- **Schedule:** The series of schedule were confirmed: CBT induction seminar for the private training institution on 7<sup>th</sup> November 2010 (16 Aban 1389); JCC on 10<sup>th</sup> November 2010. ITC suggested having a closing ceremony, scheduled on 14<sup>th</sup> November tentatively (to be informed to JPT with the details).

END

## Minute of Meeting

Meeting at 7<sup>th</sup> November 2010 at TVTO, 16.40-17.20

### Attendance

TVTO: Dr.Ghofrani

JICA Project Team: Mr.MOTOMURA, Mr.NAGUMO, Mr.DeZilwa, Ms. ISHIMARU, Mr. IMANI, Mr.Ramin

- **Report on Arrival of JPT members:** Mr. Motomura reported the arrival of the JPT members and Dr.Ghofrani welcomed.
- **Preparation of JCC:** The objectives, agenda, and schedule of the Joint Coordination Committee meeting were confirmed. In this JCC meeting, there would be participation of the officials of the Embassy of Japan as well as the JICA Iran office, though the attendances of TVTO side were not predicted as of the meeting. Since the major agenda of JCC is the contents of Final Report, a set of excerpted Farsi translation of Final Report was submitted as an advance information and explained that all the JCC members are expected to read prior to JCC for commentaries. Dr.Ghofrani was noted that he would send the invitation letter for JCC meeting, attached with the copies of the comprehensive version of translation. JPT responded that seven (7) sets of the comprehensive translation would be ready on 8<sup>th</sup>.
- **Schedule:** The upcoming schedule was confirmed as: CBT induction seminar for the private training institution at ITC on 7<sup>th</sup> November; Mr.DeZilwa's briefing on CBT for Dr.Ghofrani at 8.00 am on 8<sup>th</sup> November; and JCC on 10<sup>th</sup> November



## **Minute of Meeting**

The Working Committee Meeting was held on 13<sup>th</sup> November 2010 at ITC

Attendance:

ITC: 2 Mr. BAJULVAND, Mr. KARIMI

JICA Project Team: 7 Mr. MOTOMURA, Mr. NAGUMO, Ms. ISHIMARU, Mr. DEGABRIELE, Mr. IMAIN, Mr. SAITO, Ms. JAFARI,

The main issue was the plan to expand CBT by ITC. The main points are as follows:

- **Overall Plan:** ITC has a plan to expand the outcome of the JICA Project by implementing remaining units of competency which the Project did not implement in the second pilot training course. ITC will invite around 20 trainers from various provinces to ITC to introduce them CBT approach in TVT training. The design of the plan includes 1) inviting trainers from provinces, 2) introducing CBT approach to them, 3) assigning 1 unit of competency to every two trainers, 4) sending them back to their local TVTCs, 5) having them develop learning materials with assistance from technical translators in their regions, 6) revising the technical content of the training material and 7) implementing them at ITC.
- **IRG:** Mr. DeGabriele suggested ITC should encourage the trainers from the provinces to contact local industries at their place and, if possible, establish local IRG so that they can have consultation with them on process for customizing competency standards, developing curriculum to support training delivery to the prescribed standards and implementation. According to JPT experience of establishing IRG, ITC need to screen IRG members after forming IRG, as it is difficult to have the best membership initially. Also it is important to keep contact with the current IRG members already introduced to TVTO by JPT.
- **M&E:** Mr. Saito suggested gather all the trainers together so that each trainers can gain feedback from others for evaluation stage.
- **Use of Iranian Material:** Mr. DeGabriele suggested the use of some Iranian sources for translation and customization of units of competency and workbooks. However, according to Mr. Imani, almost all of technical workbooks in Iran are translated materials, Mr Degabriele then said that technical material used in workbooks should only be that which is currently used by industry, eg workshop manuals and other industry training materials

- **Use of CPs:** The trainers, who will come from the provinces for the mission of expanding CBT approach in automotive industry sector, will work in cooperation with the project CPs.
- **Use of JICA Experts:** ITC need a support from JICA Experts before they leave and therefore ITC will arrange workshop on 15<sup>th</sup> and 16<sup>th</sup> of November for 20 trainers from provinces to introduce CBT Induction courses.
- **Extension of the Project:** ITC has already submitted that Dr. Ghofrani write a request letter of extending one JICA expert after the termination of the project. Another letter will be also addressed to JICA office in order to accelerate the official procedure.

End

**Appendix L:**

**CBT Induction Workshop Kit**

# CBT Induction Program Objectives

## UNIT 1 *Overview of Australian VET Reform - Background & Context of CBT Application*

### Performance Objectives

At the end of this unit you should be able to:

- Describe the national vocational education and training reform agenda in Australia
- Outline the organizational structure created in Australia to implement TVT reform
- Give reasons for why (or why not) this kind of national reform could be applicable to Iran
- Outline how more industry-relevant training could be achieved on a national level in TVT in Iran

## UNIT 2 *The CBT Approach to Technical and Vocational Training*

### Performance Objectives

At the end of this unit you should be able to:

- Define the purpose of introducing CBT as a useful approach to TVT reform
- Explain the major steps of a systematic, CBT approach to technical and vocational training
- Describe the main features of the CBT model
- Describe the different types of competency standards
- Describe the Australian national qualification/certification system introduced to support national CBT delivery of courses, and explain how it works
- Discuss the positive and negative features of introducing such a model in Iran

## UNIT 3: *Identifying Industry Training Needs*

### Performance Objectives

At the end of this unit you should be able to:

- Describe the main types of needs analyses conducted to develop relevant training programs
- Explain the process already conducted to identify training needs in Australia
- Describe how the experience and achievements in Australia can be used as a basis for developing industry-based curriculum in Iran
- Describe how a needs assessment, using Australian Training package material as a base, can be conducted in Iran

## UNIT 4: *The Training Package Concept of Curriculum Development*

### Performance Objectives

At the end of this unit you should be able to:

- Explain the structure & functions of Australian VET Training Packages with special focus on the Automotive mechanical service & repair sector
- Describe the rules for designing courses using the Automotive Retail Service & Repair Training Package with focus on Inventories, Clusters, Groups and Units of Competency
- Describe a Unit of Competence noting the differences between variations in terminology used in Packages in different sectors and versions
- Select one Unit of Competence and translate into Farsi
- Write up the selected Unit of Competence in a format that would be more appropriate for use in the Automotive mechanical service & repair sector in Iran
- Confirm the information in the selected Unit with relevant personnel in one Automotive mechanical service & repair center
- Amend information to be more relevant and applicable for training in TVT in Iran

## UNIT 5 *Developing a Training Module from a Unit of Competency*

### Performance Objectives

At the end of this unit you should be able to:

- Describe a modular approach to training
- Referring to 1 or more Elements of Competence from the selected Unit of Competence, and following the guidelines of the selected Unit, develop an appropriate training module. (The given template can be used as a guide)
- Explain the concept of Element (task) breakdown
- Describe the process of designing courses comprising appropriate training modules

## UNIT 6 *Developing Training Sessions from a Training Module*

### Performance Objectives

At the end of this unit you will be able to:

- Choose one (or more) learning outcomes from the Elements of Competence in your selected training module that is suitable for delivering one training session, The session must that include both knowledge and skills competency. (The session should be for about 30 minutes duration)
- Plan a training session which includes the following:
  - a) Developing appropriate assessment methods and tools in accordance with the advice provided in the Unit of Competence and the developed Training Module
  - b) Conducting a breakdown of "assessment criteria" to develop training sessions/lessons
  - c) Writing appropriate session/lesson objectives for training sessions
  - d) Structuring sessions referring to key skills, knowledge and attitudes, and arranging the lesson into suitable component parts
  - e) Selecting appropriate training methods/strategies to use to deliver the lesson
  - f) Developing (or adapting/customizing) suitable learning materials/learning resources to support delivery of the lesson

## UNIT 7 *Delivering a CBT Training Session*

### Performance Objectives

At the end of this unit you should be able to describe importance of:

- Preparing the training environment for delivery
- Confirming prior learning of the trainees
- Motivating trainees with appropriate "start-up" strategies and questioning techniques
- Using questioning to maintain logical and sequential flow of the training session
- Catering for individual differences and adopting appropriate "learner-centred" activities to enhance learning

## UNIT 8 *Conducting Training Monitoring and Evaluation*

### Performance Objectives

At the end of this unit you should be able to:

- Explain the importance of maintaining regular and consistent trainee assessment records
- Define the process of training evaluation and explain why the process is important
- Describe appropriate methods of training program evaluation
- Design a suitable evaluation instrument
- Describe what needs to be done with evaluation results
- Discuss the context of training program evaluation in the Iran TVT context and how it can be improved

## UNIT 9 Workshop Assignment Topic - *Present a CBT Session to the Participant Group*

### Performance Objectives

At the end of this unit you will:

1. Translate one Unit of Competence from the Australian Automotive Retail Service & Repair Training Package into Farsi, setting out the various components of the unit in a presentable and accessible way
2. Develop one Training module from your selected Unit of Competence, using the model provided
3. Produce a teaching plan which includes:
  - A task analysis form the UOC
  - Assessment tools
  - Learning outcomes
  - Lesson plan
  - Suitable training methods & techniques.
  - Arrangement of the session
  - Development of appropriate learning resources

CBT Curriculum Development & Delivery Induction Workshop Schedule

9.00	12	1.00	3.00
Day 1	<p><b>UNIT 1 Overview of Australian VET Reform - Background &amp; Context of CBT Application</b></p> <ul style="list-style-type: none"> <li>Describe the national Vocational Education and Training (VET) reform agenda in Australia</li> <li>Outline the organizational structure created in Australia to implement TVT reform</li> <li>Give reasons for why (or why not) this kind of national reform could be applicable to Iran</li> <li>Outline how more industry-relevant training could be achieved on a national level in TVT in Iran (produce a diagram/graphic if possible)</li> </ul>	Lunch	<p><b>UNIT 2 The CBT Approach to Technical and Vocational Training</b></p> <ul style="list-style-type: none"> <li>State the purpose of introducing CBT as a useful approach to TVT reform</li> <li>Explain the major steps of a systematic, CBT approach to technical and vocational training</li> <li>Describe the main features of the CBT model</li> <li>Describe the different types of competency standards</li> <li>Describe the Australian national qualification/certification system introduced to support national CBT delivery of courses, and explain how it works</li> <li>Discuss the pros and cons of introducing such a model in Iran</li> </ul>
Day 2	<p><b>UNIT 3 Identifying Industry Training Needs</b></p> <ul style="list-style-type: none"> <li>Describe the main types of needs analyses conducted to develop relevant training programs</li> <li>Explain the process already conducted to identify training needs in Australia</li> <li>Describe how the experience and achievements in Australia can be used as a basis for developing industry-based curriculum in Iran</li> <li>Describe how a needs assessment, using Australian Training package material as a base, can be conducted in Iran</li> </ul>		<p><b>UNIT 4 The Training Package Concept of Curriculum Development</b></p> <ul style="list-style-type: none"> <li>Explain the structure &amp; functions of Australian VET Training Packages with special focus on the Automotive mechanical service &amp; repair sector</li> <li>Describe the rules for designing courses using the Automotive Retail Service &amp; Repair Training Package with focus on Inventories, Clusters, Groups and Units of Competency</li> <li>Describe a Unit of Competence noting the differences between variations in terminology used in Packages in different sectors and versions</li> <li>Select <b>one</b> Unit of Competence and translate into Farsi</li> </ul>

			<ul style="list-style-type: none"> <li>• Write up the selected Unit of Competence in a format that would be more appropriate for use in the Automotive mechanical service &amp; repair sector in Iran</li> <li>• Confirm the information in the selected Unit with relevant personnel in <u>one</u> Automotive mechanical service &amp; repair center</li> <li>• Amend information to be more relevant and applicable for training in TVT in Iran</li> </ul>
Day 3	<b>UNIT 4 The Training package Concept of Curriculum Development (Continued)</b>		<b>UNIT 4 The Training package Concept of Curriculum Development (Continued)</b>
Day 4	<b>UNIT 5 Developing a Training Module from a Unit of Competency</b> <ul style="list-style-type: none"> <li>• Describe a modular approach to training</li> <li>• Referring to 1 (or more) Elements of Competence from the selected Unit of Competence, and following the guidelines of the selected Unit, develop an appropriate training module. (The given templates can be used as a guide)</li> <li>• Describe the process of designing courses comprising appropriate training modules</li> </ul>		<b>UNIT 5 Developing a Training Module from a Unit of Competency (Continued)</b>
Day 5	<b>UNIT 5 Developing a Training Module from a Unit of Competency (Continued)</b>		<b>UNIT 5 Developing a Training Module from a Unit of Competency (Continued)</b>
Day 6	<b>UNIT 6 Developing Training Sessions from a Training Module</b> <ul style="list-style-type: none"> <li>• Choose an Element of Competence from the</li> </ul>		<b>UNIT 6 Developing Training Sessions from a Training Module (Continued)</b>



	<p>selected training module that is suitable for delivering <b>one</b> training session that includes both knowledge and skills competency. (The session should be for 30 minutes duration)</p> <ul style="list-style-type: none"> <li>• Plan a training session which includes the following: <ul style="list-style-type: none"> <li>g) Developing appropriate assessment methods &amp; tools in accordance with the advice provided in the Unit of Competence and the developed Training Module</li> <li>h) “Breaking down” assessment criteria to develop appropriate training sessions/lessons</li> <li>i) Writing session/lesson objectives for the training session</li> <li>j) Structuring the session referring to key skills, knowledge and attitudes and arranging the lesson into suitable component parts</li> <li>k) Selecting appropriate training methods/strategies to use to deliver the lesson</li> <li>l) Developing (or adapting/customizing) suitable learning materials/learning resources</li> </ul> </li> </ul>		
Day 7	<b>UNIT 6 Developing Training Sessions from a Training Module</b>		<b>UNIT 6 Developing Training Sessions from a Training Module</b>
Day 8	<b>UNIT 6 Developing Training Sessions from a Training Module (continued)</b>		<b>UNIT 7 Delivering a CBT Training Session</b> <ul style="list-style-type: none"> <li>• Preparing the training environment for delivery</li> <li>• Confirming prior learning of the trainees</li> <li>• Motivating trainees with appropriate “start-up” strategies</li> </ul>

			<p>and questioning techniques</p> <ul style="list-style-type: none"> <li>• Using questioning to maintain logical and sequential flow of the training session</li> <li>• Catering for individual differences and adopting appropriate “learner-centered” activities to enhance learning</li> </ul>
Day 9	<p><b>UNIT 8 Conducting Training Monitoring and Evaluation</b></p> <ul style="list-style-type: none"> <li>• Explain the importance of maintaining regular and consistent trainee assessment records</li> <li>• Define the process of training evaluation and explain why the process is important</li> <li>• Describe appropriate methods of training program evaluation</li> <li>• Design a suitable evaluation instrument</li> <li>• Describe what needs to be done with evaluation results</li> <li>• Discuss the context of training program evaluation in the Iran TVT context and how it can be improved</li> </ul>		<p><b>UNIT 8 Conducting Training Monitoring and Evaluation (Continued)</b></p>
Day 10	<p>Program summary, questions and answers and evaluation</p>		<p>Dissemination Workshop for Training needs Analysis Survey</p>

**Induction Program for  
Developing and Delivering a Competency Based  
Curriculum**

**Overview**

## Technical and Vocational Training Organization

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## **INTRODUCTION**

This document is to be used in conjunction with a participatory workshop. The manual if used without a participatory workshop, is limited in value because it does not sufficiently clarify a number of issues and points.

It is very necessary that people engaged in the process of TVT reform have the opportunity to discuss a number of the concepts of CBT curriculum development and delivery and TVT reform described in the document. It is also important that they have the opportunity to apply some of the recommended approaches and models.

## **FOREWORD**

The term “induction” has been purposely selected. This program is not meant to be a series of academic lectures on CBT and Australian VET reform. It is also not meant to be a “blueprint” for introduction of a CBT system into Iran.

One purpose of the Workshop is to provide information on the background and context of VET reform in Australia and CBT approach was selected as the single, comprehensive approach to this reform. The other purpose is to provide a model of curriculum development and delivery which have has already been developed within the system in Australia, and consider whether this could be feasibly be used to provide for a more industry-driven TVT system in Iran.

A requirement of the workshop participants is that everyone produces a small piece of curriculum (in Farsi) and presents one short piece of training based on the CBT approach. There is an old saying: We remember about 10% of instruction when we listen to it, we remember around 40% when we see it being performed, and over 80% when we actually do (practise) it. So the expectation is that everyone will gain far more appreciation of the approach and alternative models of curriculum development if they have actively participated in the planned activities.

Throughout the workshop I am happy to discuss issues and certainly clarify any points about VET reform and CBT. I am not really interested, at this stage, in either arguing about the acceptability of CBT as a valid approach for TVT/VET, or whether or not it is better than the system that is currently adopted. That is for all participants to decide at a

later date. I am quite prepared to admit that there are other different approaches that have been adopted to solve the problem of providing job-ready trainees, and some of these are probably just as effective or perhaps even more effective.

You may even decide that the system already in place in TVT is either similar or better than the system that we will be discussing. If so, there may be 2 alternatives – ignore the approach and models entirely, or selectively use features from them to enhance the Iranian TVT system.

It is important to remember one of the main objectives of training – to provide people that are able to enter the workforce with as great a degree of “job-readiness” as possible. In the first instance this means preparing people by giving them the technical ability, as well as other attributes, for ENTRY level into the workforce. No one expects graduates from training institutions to enter the workforce with such well developed skills that they can compete with workers who have been in the enterprise for years. It is well known that a substantial amount of the knowledge and skills required to perform the jobs effectively in the workforce need to be learned on the job.

However it is obviously much better for enterprises to recruit entry level workers who are as job-ready as possible. Importantly, it is impossible to identify the knowledge and skills that are needed for job-readiness, on a continuing basis, without actually consulting with people in industry and business (enterprises) about what these requirements are.

In Australia, the initial focus was on providing the knowledge and skills necessary for entry level. As will be discussed later, a great deal of time, money and expertise was directed at setting up a VET system in which Industry is the key player. Now, the effort is also being extended to cater not just for the job entry level, but also for people in the workforce who want to extend their capability. This aspect of VET is generally referred to as *continuing education*. Government-funded education and training providers, known as Technical and Further Education (TAFE) institutes, private providers, known as private registered Training Organizations (Private RTOs) and industry-based providers (Enterprise RTOs) are all committed to delivering needs-based training that:

- Enables people to cope with new technology coming into their workplace
- Change jobs if and when jobs in their sector are lost or diminish (as in the situation currently experienced in many countries)



In this workshop, we will look mainly at the background of VET reform in Australia because it is the system that I am most familiar with. I have also been involved in VET/TVT/TVET reform projects in other countries and will, very occasionally, refer to or make comparisons with the approach adopted there. In most of these cases, such as the Philippines (which is a very good example of how one country's VET reform process and many of its important features can be successfully imported) the model has been very much an adaptive one.

There are many different countries around the world that have been involved in reforming their training systems, and many of them have adopted a CBT approach in implementing this reform. Thus there are models that are discussed and there are many differences in terminology. For example, some people like the Australians refer to the basic curriculum building block as a Unit of Competency. European models refer to "Major Functions", "Functional Modules", "Overarching Modules" and "Areas of Competence".

Terminology is not important and one should not get tied up in the confusion of words. In the Australian system, we do not even use the term "module" anymore because this term was used to describe curriculum before the system was reformed and before CBT was adopted as the main approach to training. In this workshop we will continue to use the word module because it has been used by so many other trainers in other projects – ILO, World Bank etc.

The important thing in all the discussions about the use of CBT method and approach is that the concept is the same. The basic idea is to use a **systematic** approach to identifying the training that needs to be provided, describing as precisely as possible the knowledge, skills (and sometimes even attitudes) that the training participants need to achieve, deliver the training as effectively as possible, assess the trainees to confirm that the trainees can demonstrate everything that they were supposed to achieve and evaluate the whole process to see how it can be improved.

The European Model, for example, as described by Bob Mansfield in his document Competence Based Standards, Training and Learning, is outlined thus:

1. Determine the key purpose
2. Identify the major functions
3. Develop the functional modules

4. Define the areas of competence
5. Develop relevant learning modules

The model adopted in the Australian VET system reflects exactly the same concept as the European one:

- Training Map (far more detailed description)
- Figure on page 6 of Overview)
- Systems (CBT) approach

As you will see, the actual terms used to describe each step (or product) in the sequential process, are different. There is no point in trying to find exact, parallel translations of each term.

The main concept is that:

- it is important to identify, as precisely as possible, the training that is likely to produce the best possible job-read trainees
- break this training down into “manageable chunks” that can be delivered in the most effective and convenient way

## **1. OVERVIEW OF TRAINING REFORM**

### **1.1. What is Vocational Education and Training?**

Vocational education and training (VET) is a commonly used international term that describes the development and improvement of skills and knowledge for the specific purpose of improving a person's capacity to effectively perform a job.

In some countries it is called TVET (technical and vocational education), and in other countries it is called vocational training. In Iran it is called TVT (technical and vocational training).

In most countries, there is generally a lot of overlap between VET and what is called general education. For example, the very important skills of literacy and numeracy are necessary to enable people to perform in any kind of job. Many higher education courses such as Medicine, Pharmacology, Dentistry, Law and so on, train people for very specific areas of work, but the term VET is not generally used to describe higher education courses.

Although there is no clear division between VET and general education, there are a number of points that are very closely associated with VET. They include:

#### *An association with industry*

A major objective of VET is to improve the capacity of people to do a job. Industry, therefore, generally benefits from VET, and improved work capacity can help a company become more productive. Industry is a major stakeholder in VET.

#### *An association with a job or a task*

VET courses are usually associated with particular areas of employment (or tasks) and are different from the more general courses provided by higher education institutes (universities and colleges).

#### *Learning on and off the job*

VET courses often combine off-the-job and on-the-job training. Some courses can be totally job (or work) based, others totally provider (training organisation) based and some mixed.

#### *Skills based*

The main purpose of VET courses is to improve a person's capacity to perform specific jobs or tasks. These jobs or tasks can be broad or narrow, but the key point is that VET courses are designed for particular areas of employment. They provide specific skills that are needed for an area of work. Abstract learning (as in university courses) is not a strong feature of VET. Underpinning knowledge is included for the benefit of improving a person's capacity to work better, to transfer skills (or competencies) from the course to the work situation or from one work situation to another.

While it is difficult to define VET precisely, one can think of it as the sector that is oriented towards:

- Work and employment knowledge and skills
- Industry and productivity
- Learning on and off the job
- Learning in a wide variety of contexts
- Capacity to do the job or task

## **1.2. Factors Leading to VET Reform**

VET has been traditionally the sector for technical and trade training. As new industries such as communications and service industries began to grow, there needed to be much greater industry involvement in training.

In the past decade in many countries, the VET sector has undergone many changes. These changes have been due to:

- globalisation and the need for increased productivity and efficiency to compete with enterprises all over the world
- increased movement between jobs and training
- changes in work arrangements such as increases in part time and casual employment
- growth in small business
- increased demand for multi-skilled employees
- increased demand for flexibility to move between jobs, industries and locations
- new information and communication strategies;
- increased demand for more relevant workplace training.

With all these changes, there has been a greater emphasis on identifying the skills and knowledge needed to undertake various jobs, and the need to develop new and different skills.

## **1.3. Use of Competency Based Training (CBT) in Training Reform**

The concept of CBT emerged in a few countries in the late 1980s. Its main feature in education theory is the principle of an industry-led training system. Previously called “criterion-based assessment and goal-based curriculum”, this approach has been around for some time. Its main advantages are that *specified learning outcomes provide for better teaching practices and more acceptable forms of assessment.*

To deal with the economic and industry changes, it was considered that a competency based approach to training would provide delivery, assessment and certification of skills and knowledge required for effective workplace performance. Individuals would have access to recognized training through more flexible delivery arrangements including on and off the job training, and distance learning through public and private providers.

#### 1.4. The Australian Example

Reform of the Australian VET system came through agreement by Government & industry that CBT should be the main approach for all training.

This agreement led to the concept of *national* competency standards that are developed by *industry*. National competency standards provide the foundation of the national training system. Without competency standards, there would be no real means of setting up and putting into action a national VET system.

Competency standards provide the basis for all VET courses and qualification. They are also the means for common recognition and acceptance of knowledge and skills and qualifications across the country.

VET reform in Australia had its origins in a time of economic crisis. Improved VET was considered essential to allow industry to improve its performance and to be able to compete in the increasingly internationalized economy.

Much of the thinking about VET reform was about meeting the needs of industry as a client and allowing *industry to lead VET in the country*. The mechanism for achieving this has been for industry to specify its own needs through the development of competency standards (and more recently the development of ***Training Packages***).

Another means of for providing industry leadership in the VET reform process has been through industry membership in a number of relevant committees, councils and boards. Government funding set up Industry Training Advisory Boards (now called Industry Skills Councils) for each major industry sector.

The 2 main features of the reformed Australian VET system is that it is:

##### *An open system*

The Government has tried to develop what is known as an open system in the VET reform process; that is a system that allows for a greater range of providers, and for industry and individuals to choose the kind of program that meets their needs.

The open system also allows for public-funded and private providers (or training organizations) to operate within the same system in what is often referred to as a competitive “training market”. The system offers opportunities for registration of private providers, and an increased percentage of Government funding has been made available through open tendering and “user choice”.

##### *A National system*

The purpose of creating the national system is to achieve greater consistency in the recognition of training qualifications. It is also to intend to provide better pathways within the system and between the VET sector and the higher education and schools sector.

The “national” elements that training reform has brought to the VET sector include:

- national industry competency standards
- a national approach towards the recognition of competencies and qualifications
- a national qualifications framework
- a national entry level training system
- national recognition of registered training organizations

In order that training conducted at training organizations would be recognized and accepted by industry, the following 3 main elements were introduced into the national system:

- training packages
- national assessment arrangements
- the Australian Quality Training Framework

It was expected that these elements would provide a direct link between competency standards and learning programs.

It was also expected that there would be greater consistency between qualifications awarded by different training providers.

## 2. CBT CURRICULUM DEVELOPMENT

### 2.1. Definition of Curriculum

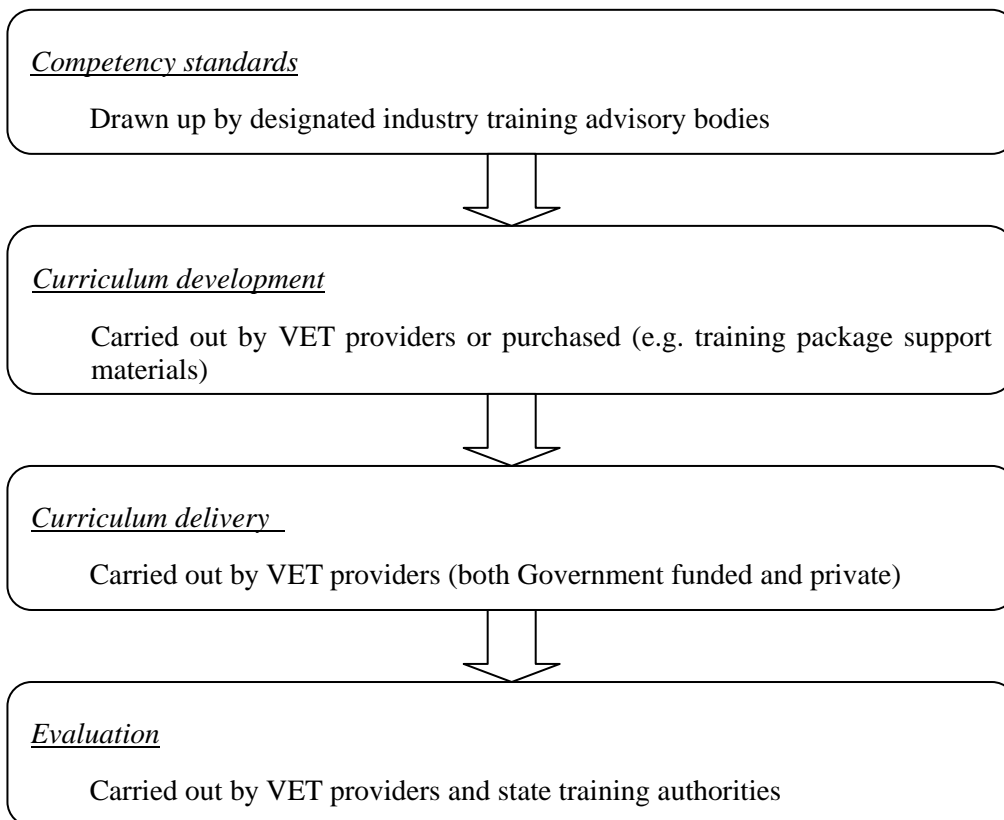
Curriculum has been defined as follows:

- Planned learning experiences
- Offered within an education institution/program
- Represented by a document
- Includes experiences that have resulted from that document.

Point 4 is interesting because it suggests that a curriculum only becomes real when learners become involved in it.

CBT curriculum is referred to as a linear model. The following diagram describes the method of curriculum development for delivery of nationally accredited courses in Australia.

*(If training providers do not want to deliver accredited qualifications, they can develop their curricula in whatever way they prefer).*



#### Further Definitions of CBT Curriculum

The following are 2 broadly accepted definitions of CBT used in the Australian VET context:

- “A way of approaching vocational training that places primary emphasis on what a person can do as a result of training (the *outcome*), and as such it is a shift away from an emphasis on the process involved in the training (the *inputs*). It is concerned with training to specific standards rather than the individual’s achievement relative to others”.
- “Training geared to the attainment and demonstration of skills to meet industry-specified standards rather than to an individual’s achievement relative to others in a group”.

The key points in both definitions are:

- The focus of training is on the *outcome*
- The outcome is measured against *specified standards*, not against other trainees
- The standards relate to *industry*.

## 2.2. Competency Standards

A competency standard is a nationally agreed statement of skills and knowledge required for effective performance in a particular job or job function. Someone who is competent can demonstrate that they have the required skills and knowledge and be able to apply to the standards of performance required in the workplace.

Competency standards do not describe the procedures necessary to perform a particular role. They identify the necessary skills and knowledge that contribute to a job function.

The following are 3 classifications of competency standards:

### Industry standards

Industry standards are national competency standards endorsed for a specific Industry. (Examples include Community Health, Funeral industry and Information Technology Competency Standards)

### Cross-Industry standards

Cross-industry standards are based on competencies that are common to a range of industries. (A good example is the Business Services Training Package)

### Enterprise standards

Enterprise standards consist of the competency standards developed and/or used specifically at enterprise level. (For example, large food chains, department stores, supermarkets and manufacturing plants have developed competency standards for their particular needs).



## 2.3. Key Features of CBT Curriculum

### Output-Focused Orientation

CBT is always concerned with what the trainee will be able to do at the end of the training. There is not so much concern about what the inputs are. As long as the trainee achieves the listed competencies, it does not matter who taught him or her, how or when the training took place, or what learning resources were used.

*The Training Packages, which are the basis of VET training in Australia (and are discussed in more detail), take this concept to the extreme. The “endorsed” component only specifies the training standards and assessment).*

### Involvement of Industry

The major aim of CBT is to provide workers who are able to perform in industry. Industry, therefore, must be involved at several stages in the training process. Industry is involved in drawing up the competency standards, in providing feedback on delivery and assessment of CBT courses and, in an ideal CBT situation, at least some of the training is delivered in the workplace or at least in a simulated workplace.

### Recognition of Current Competence

Because the main focus of CBT is on outcomes and not inputs, it does not really matter where the individual has gained his or her learning. They may have learned the skill in a previous job or working by themselves informally or at hobby level. It is important that people have the opportunity to be assessed for the skills they already have and are not forced to undertake training for skills or knowledge that they already possess. (Recognition of current competence is also often referred to as recognition of prior learning or RPL).

### Modularization of Delivery

CBT is designed to produce workers with competencies that are specifically related to jobs. Courses, therefore, can be divided into separate *modules* which are now referred to in the Australian VET system as *Units of Competency*. Each unit is broken up into *elements of competence* and can generally be undertaken in a relatively short period of time (typically between 20 – 60 hours). This makes it convenient for people to undertake training that is specifically relevant to their current job, to meet the requirements of newly introduced technology or applying for a new position.

### Self-Paced Delivery

It is possible to deliver CBT in many ways but many VET instructors believe that the only legitimate way of using the CBT approach is to use self-paced delivery. The reason behind this is that trainees should be allowed to achieve competence in their own time and not have a length of time imposed on them. It is believed that trainees should be able to move from module to module in their own time with instructors providing assistance where required. In reality, however, few training

providers are able to offer this degree of flexibility.

#### Assessment based on Demonstration rather than Knowledge

CBT places great emphasis on skill as compared with knowledge. Assessment, in the CBT approach, relates to the student being able to do something rather than knowing things. This has meant that many of the written tests which used to be given to trainees by training providers have had to be replaced with skills tests. One of the disadvantages with this kind of skills testing is that administering these tests to individual trainees can take a longer time. One of the major advantages is that the tests are a far more valid form of assessing the trainee's competence.

#### Flexible delivery

The CBT approach is often associated with flexible delivery – training that can be delivered in a variety of ways to meet the need of different groups of clients/trainees. Flexible delivery can include:

- Choice of the means of training – i.e. Full or part time, face-to-face, on-the-job training and so on
- Choices of ways of learning – i.e. Video, interactive CD Rom, on-line delivery etc.
- Trainee choice in the timing and method of assessment

#### Widely Recognized Competencies

One of the strongest features of CBT is that because the competencies that frame VET courses are clearly described and determined by industry, the trainees will receive not just a qualification but the units of competence they have achieved.

The employer can be assured that an applicant for a job is trained to current industry requirements which are consistent with national standards. Particularly if the curriculum is a national one, competencies can be recognized across an entire nation and, in most cases, internationally as well especially where industry sectors have similar operations (e.g. Hospitality, Auto Service and Repair etc.).

### **3. IDENTIFYING THE NEED FOR TRAINING**

Generally on a national level, there are 4 types of studies that can be conducted to find out what kind of training is required across various industry sectors.

Usually a preliminary analysis is conducted, but if it becomes clear that further detailed information is required, there may need to be a comprehensive workforce study covering ALL 4 types of the following analyses:

- Industry analysis
- Labour market analysis
- Occupational analysis
- Training needs analysis

In most cases it will be clear that a range of issues can be addressed by just 1 of the 4 types of analysis – *this is called fast streaming*.

#### **3.1. Definitions of the Four Types of Study**

##### Industry Analysis

- Determining the boundaries of the industry under consideration
- Examining determinants of the industry's activity levels
- Assessing likely future industry & employment levels in the context of expected movements in these determinants

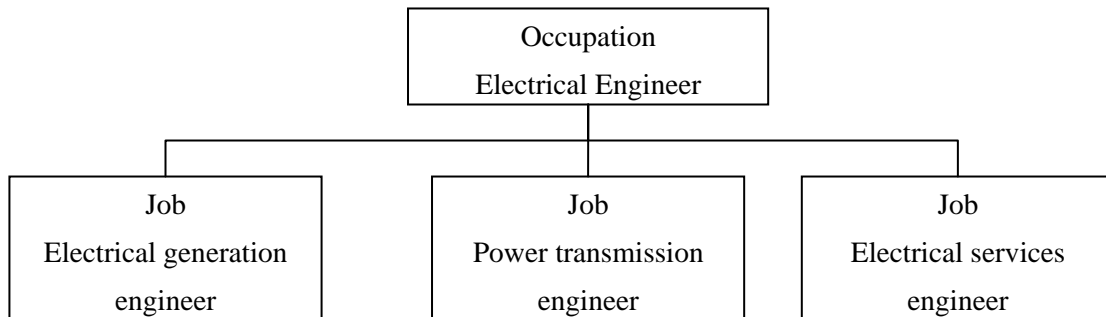
##### Labour Market Analysis

Assessment of the numbers in each occupation or job, in terms of the current & predicted demand for personnel compared with current & predicted availability (supply) of qualified people to fill such positions

##### Occupational Analysis

Identification of current and likely future jobs within an occupation, and the duties and tasks which comprise each job, together with the relevant information. Occupation and job are hierarchical. As indicated in the figure below, an occupation can comprise a number of specializations.

## Example of Occupational Specializations



### Training needs Analysis

Assessment of the differences between the actual condition (what is) and the desired condition (what should be) in performance within an organization or sector in terms of knowledge, skills and attitudes.

#### **3.1.1. Situations Needing Training**

What starts the whole process of a person being trained? We could say, quite simply, that “someone” sees a need for people to know more and be able to do more. Who might that someone be? Here are two typical situations:

##### Situation 1 - Industry

- The company sees a need to purchase new equipment to increase productivity and improve their image overseas.
- A supervisor who works for the company sees a need for the staff in his/her section to learn how to use and maintain the new equipment safely and efficiently.
- A worker in this company sees the need to improve their skills in operating and maintaining the new machinery so that they keep up-to-date in their job.

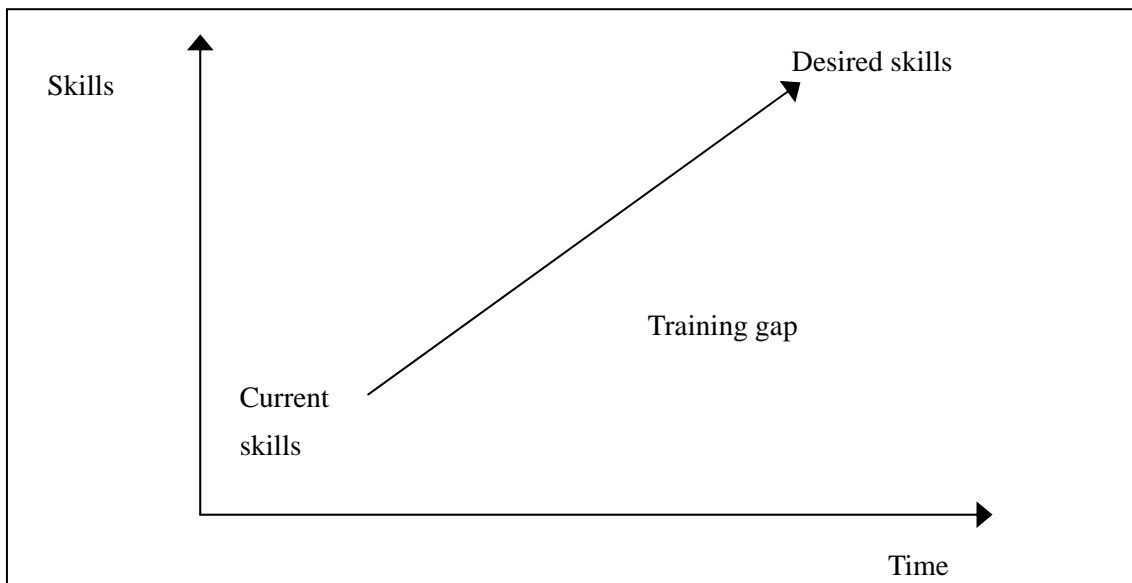
##### Situation 2 – Government Department

- The Government department sees a need for people in the community to become more familiar with how to use computers.
- A project officer who works for this department sees a need for unemployed people in the community to learn basic computing skills for the workplace.
- An unemployed person who is thinking of doing a computer course sees a need to overcome their fear of computers and gain some hands-on experience.

### 3.2. Conducting a Training Needs Analysis

The precise need for training can be identified in two ways – informally or formally. Informally, observing tasks or having discussions with relevant people associated with these tasks can assess the need. The formal way of establishing a training need is to conduct a training needs analysis.

The main intention of conducting such an analysis is to assess the gap between the present job performance and the desired job performance as indicated in the following diagram:



The process involves identifying the skills and knowledge required by workers to perform certain tasks at the desired level and then checking to see how they are performed at present. If the current performance is not at the desired level, a need for training has been identified. By doing this, an organisation has a very clear picture of exactly what training needs to be done. It can tailor a training program to meet these specific needs.

#### Gathering Information

The organisation needs to develop a detailed outline of the skills, knowledge and attitudes needed to perform a particular job. Information could be obtained through, job descriptions procedure manuals, consultations with experts, task analysis and course outlines.

### Measuring Requirements against Current Skills

Having gathered information about the skills and information necessary to undertake particular tasks, the identified skills need to be measured against those which currently exist within the organization. Any gap will identify a need for training.

This can be done in the following ways:

- Questionnaire
- Observation of work skills
- Interview of workers
- Examination of the organization's records
- Group discussion

## **4. TRAINING PACKAGES**

### **4.1. Description of a Training Package**

Training packages form the basis for most Australian VET curriculum. It is important to note that in developing these Training Packages, the Australian federal and State Governments over a period of 20 years sub-contract the conduct of labor market surveys to private consulting firms on an ongoing basis. These surveys provide progressive information and projected numbers of job requirements across all industry sectors.

Federal and State Governments have also set up Industry Training Advisory Bodies, over a period of 20 years, to conduct needs analyses in most industry sectors in putting together the approximately 32 Training Packages.

A Training Package contains many different qualifications from different areas of an industry. Sometimes a Training package can cost up to AUD 1000, but some are cheaper. Registered Training Organizations (RTOs) must buy copies of Training Packages before adding the qualification to their “Scope of Services”. Sometimes the Training Package, and/or its support materials, is available on CD Rom allowing the RTO to adapt (or contextualize) the materials to suit their needs.

#### **4.1.1 What is in a Training Package?**

A Training Package is an integrated set of nationally endorsed units of competence, assessment guidelines and Australian Qualifications Framework (AQF) qualifications for a specific industry, industry sector or enterprise.

Each Training Package:

- provides a consistent and reliable set of components for training, recognising and assessing people’s skills, and may also have optional support materials
- enables nationally recognised qualifications to be awarded through direct assessment of workplace competencies
- encourages the development and delivery of flexible training which suits individual and industry requirements
- encourages learning and assessment in a work-related environment which leads to verifiable workplace outcomes.

#### **4.1.2 How do Training Packages fit within the National Training Framework?**

The National Training Framework is made up of the nationally agreed quality arrangements for the vocational education and training sector, the Australian Quality Training Framework (AQTF), and Training Packages endorsed by the National Training Quality Council (NTQC).

#### **4.1.3 How are Training Packages developed?**

Training Packages are developed by Industry Skills Councils or enterprises to meet the identified training needs of specific industries or industry sectors. To gain national endorsement of Training Packages, developers must provide evidence of extensive research, consultation and support within the industry area or enterprise.

#### **4.1.4 How do Training Packages encourage flexibility?**

Training Packages describe the skills and knowledge needed to perform effectively in the workplace without prescribing how people should be trained. Training Packages acknowledge that people can achieve vocational competency in many ways by emphasizing what the learner can do, not how or where they learned to do it. For example, some experienced workers might be able to demonstrate competency against the units of competence, and even gain a qualification, without completing a formal training program.

With Training Packages, assessment and training may be conducted at the workplace, off-the-job, at a training organization, during regular work, or through work experience, work placement, work simulation or any combination of these.

#### **4.1.5 Who can deliver and assess using Training Packages?**

Training and assessment using Training Packages must be conducted by a Registered Training Organisation (RTO) that has the qualifications or specific units of competence on its scope of registration, or that works in partnership with another RTO as specified in the AQTF

#### **4.1.6 Training Package Components**

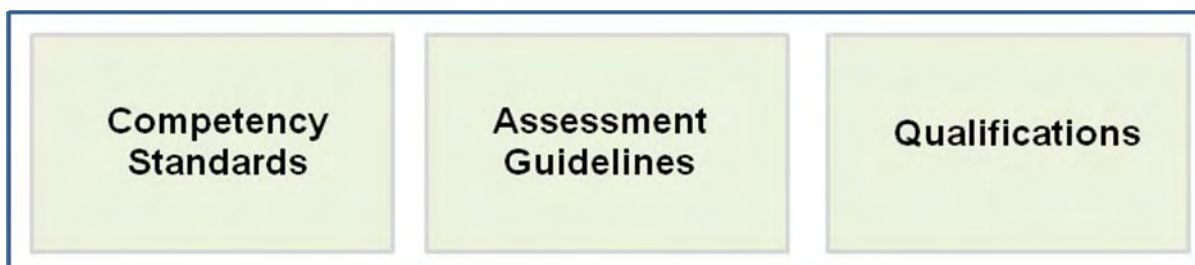
Training Packages are made up of mandatory components endorsed by the NTQC, and optional support materials. The nationally endorsed components include the Units of Competence, Assessment Guidelines and Qualifications Framework. These form the basis of training and assessment in the Training Package and, as such, they must be used.

##### ***Training Package Endorsed & Non-Components***

The nationally endorsed components include the Units of Competence, Assessment Guidelines and Qualifications Framework. These form the basis of training and assessment in the Training Package and, as such, they must be used.



## ***Endorsed Components***



### ***Units of Competence***

Each unit of competence identifies a discrete workplace requirement and includes the knowledge and skills that underpin competency as well as language, literacy and numeracy; and occupational health and safety requirements. The units of competence must be adhered to in training and assessment to ensure consistency of outcomes.

### ***Assessment Guidelines***

The Assessment Guidelines provide an industry framework to ensure all assessments meet industry needs and nationally agreed standards as expressed in the Training Package and the *Standards for Registered Training Organisations*. The Assessment Guidelines must be followed to ensure the integrity of assessment leading to nationally recognized qualifications. Competency Standards

### ***Qualifications Framework***

Each Training Package provides details of those units of competence that must be achieved to award AQF qualifications. The rules around which units of competence can be combined to make up a valid AQF qualification in the Training Package are referred to as the 'packaging rules'. The packaging rules must be followed to ensure the integrity of nationally recognized qualifications issued.

### ***Training Package Support Materials***

The endorsed components of Training Packages are complemented and supported by optional support materials that provide for choice in the design of training and assessment to meet the needs of industry and learners. Training Package support materials can relate to single or multiple units of competence, an industry sector, a qualification or the whole Training Package. They tend to fall into one or more of the categories illustrated below.



Training Package support materials are produced by a range of stakeholders such as RTOs, individual trainers and assessors, private and commercial developers and Government agencies. Where such materials have been quality assured through a process of ‘noting’ by the NTQC, they display the following official logo. Noted support materials are listed on the National Training Information Service (NTIS), together with a detailed description and information on the type of product and its availability ([www.ntis.gov.au](http://www.ntis.gov.au)).

It is not compulsory to submit support materials for noting; any resources that meet the requirements of the Training Package can be used.

### ***Training Package, Qualification and Unit of Competence Codes***

There are agreed conventions for the national codes used for Training Packages and their components. Always use the correct codes, exactly as they appear in the Training Package, and with the title always following the code.

#### ***Training Package Codes***

Each Training Package has a unique five-character national code assigned when the Training Package is endorsed, for example AUR05. The first three characters are letters identifying the Training Package industry coverage and the last two characters are numbers identifying the year of endorsement.

#### ***Qualification Codes***

Within each Training Package, each qualification has a unique eight-character code, for example AUR20505. The first three letters identify the Training Package; the first number identifies the qualification level (noting that arabic numbers are not used in qualification titles themselves); the next two numbers identify the position in the sequence of the qualification at that level; and the last two numbers identify the year in which the qualification was endorsed. (Where qualifications are added after the initial Training Package endorsement, the last two numbers may differ from other Training Package qualifications as they identify the year in which those particular qualifications were endorsed.)

### ***Unit of Competence Codes***

Within each Training Package, each unit of competence has a unique code. The unit of competence codes are assigned when the Training Package is endorsed, or when new units of competence are added to an existing endorsed Training Package.

A typical code is made up of 12 characters, normally a mixture of uppercase letters and numbers, as in AURT217108A. The first three characters signify the Training Package (AUR05 Automotive Training Package – Retail, Service and Repair Sector in the above example) and up to eight characters, relating to an industry sector, function or skill area, follow. The last character is always a letter and identifies the unit of competence version. The ‘A’ in the example above indicates that this is the original unit of competence. An incremented version identifier usually means that minor changes have been made. Typically this would mean that wording has changed in the range statement or evidence guide, providing clearer intent. Where changes are made that alter the outcome, a new code is assigned and the title is changed.

### ***Training Package, Qualification and Unit of Competence Titles***

There are agreed conventions for titling Training Packages and their components. Always use the correct titles, exactly as they appear in the Training Package, and with the code always placed before the title.

#### ***Training Package Titles***

The title of each endorsed Training Package is unique and relates the Training Package’s broad industry coverage.

#### ***Qualification Titles***

The title of each endorsed Training Package qualification is unique. Qualification titles use the following sequence:

- The qualification is identified as Certificate I, Certificate II, Certificate III, Certificate IV, Diploma or Advanced Diploma
- This is followed by the words ‘in’ for Certificates I to IV and ‘of’ for Diploma and Advanced Diploma
- Then the industry descriptor follows, for example Vehicle Servicing.

For example:

AUR20505 Certificate II in Automotive Vehicle Servicing

AUR50205 Diploma of Automotive Technology.

#### ***Unit of Competence Titles***

Each unit of competence title is unique. Unit of competence titles describe the competency outcome concisely, and are written in sentence case.

For example:

AURT217108A Carry out wheel alignment operations

AURT301357A Rebuild engine components.

#### **4.2. Some of the difficulties in using Training Packages**

Many teachers & trainers have difficulties using the training packages because of their size and, sometimes, language used. There are guides that assist people in using them. For example the Western Australian Government has produced a guide called “Using Training Packages: From Training Package to Learning Program”. In particular this guide helps to bridge the gap between the Training Package itself and the *learning program* that is used to deliver the Package.

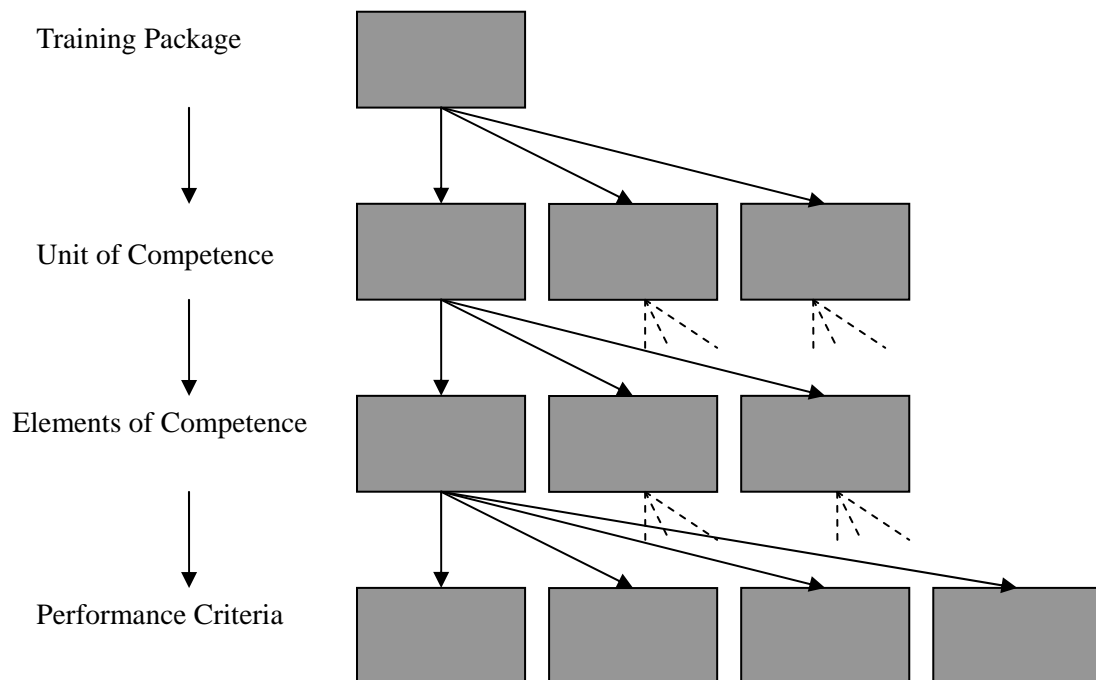
The Guide assists the teachers & trainers with the following decisions:

- Which Training Package best suits your clients?
- What does the Training Package contain?
- Which qualifications from the Training Package offer greatest value?
- What mix of Units of Competency will be offered?
- How will the assessment be conducted?
- What modes of delivery are appropriate?
- What learning and assessment resources will be used?
- What literacy, numeracy, key competencies (employability skills) will be included?

#### **4.3. The building blocks of Training Packages**

The building blocks of Training Packages are *Units of Competence*. These in turn are divided into elements of competency with performance criteria.

The following diagram outlines the relationship between Units of Competence, elements of competency and performance criteria:



#### 4.4. Employability Skills

All training packages include employability skills which the trainers have to enable trainees to achieve as part of undertaking VET courses. The following is a summary of these employability skills:

##### Communication

The ability to interpret the needs of the client. Developing this competency relates to using a range of communication skills such as:

- Listening
- Questioning
- Reading
- interpreting and writing documents
- writing hazard and incident reports
- using effective facilitation and interpersonal skills including verbal and body language which is sensitive to the needs of others
- mentoring, coaching and tutoring techniques

##### Teamwork

- working with colleagues to compare, review, compare and evaluate assessment processes and outcomes
- actively participating in assessment validation sessions
- managing work relationships and seeking feedback from colleagues and clients

on professional performance

- developing and evaluating with others' learning programs, customized for individual or group needs

#### Problem Solving

- identifying hazards and assessing risks in the learning environment
- using time management skills in designing learning programs
- calculating cost of programs, logistics of delivery and accessing appropriate resources
- generating a range of options to meet client needs

#### Initiative and Enterprise

- interpreting the learning environment and selecting delivery approaches which motivate and engage learners
- monitoring and improving work practices to enhance inclusivity and learning
- being creative to meet clients' training needs
- applying design skills to develop innovative and flexible cost effective programs

#### Planning and Organizing

- researching, reading, analyzing and interpreting workplace specifications
- planning, prioritizing and organizing workflow
- interpreting collected evidence and making judgments of competency
- documenting action plans and hazard reports
- working with clients in developing personal or group learning programs

#### Self-management

- working within policy and organizational frameworks
- managing work and work relationships. Adhere to ethical and legal responsibilities
- taking personal role and responsibility in the planning, delivery and review of training
- being a role model for inclusiveness and demonstrate professionalism
- examining personal perceptions and attitudes

#### Learning

- undertaking self evaluation and reflection practices
- researching information and accessing policies and frameworks to maintain currency of knowledge and skills
- promoting a culture of learning in the workplace, seek feedback from colleagues
- facilitating individual, group based and work based learning

### Technology

- using technology to enhance outcomes i.e. online delivery, research using the web
- using student information management systems to record assessments.
- technology and equipment needs are identified and organized prior to training
- ability to use a range of software including presentation packages

## **5. THE PLANNING PROCESS FOR CBT DELIVERY**

Having identified the need for training, the next step is to devise a training program which will provide participants **with** the skills and knowledge to perform their work at the desired level.

Trainees may have been away from a training environment for a long period of time. People have limited concentration spans. Trainees benefit from having the opportunity to go away and consider the information resented or practice the skills learnt before moving on to the next point. For these reasons, it may be more beneficial to run training over a series of shorter sessions rather than one very long session.

### **5.1. Steps in Developing a Training Program**

1. Identify the overall aim (what the training program hopes to achieve – the big picture). For example, the overall aim might be to prevent shutting down the machine due to minor faults.
2. Identify the specific objectives (these are more detailed outcomes that will help achieve the overall aim). For example, one objective might be to ensure that all workers can carry out maintenance procedures for the equipment. Note – there is more detailed information about writing training objectives in the section covering training sessions.
3. Identify the topics that need to be presented. These might include the properties of different lubricants used in the maintenance of the equipment.
4. Put these topics into a logical order.
5. Establish how long it will take to cover each topic.
6. Establish the length of each session.
7. Work out how many sessions will be required.
8. Select an appropriate time and location for the training.
9. Choose appropriate assessment methods.

### **5.2. Breaking Down Information**

When you are planning a training session, you need to break the information you are giving into “chunks” that are the amount of information a participant can take in at one time. The length of a chunk of information will vary depending on the complexity of what is involved, but on average, a chunk of new information should be no more than fifteen minutes of new information. After this, the learner needs to move on to an activity that consolidates the information by allowing them to apply it in an active way.

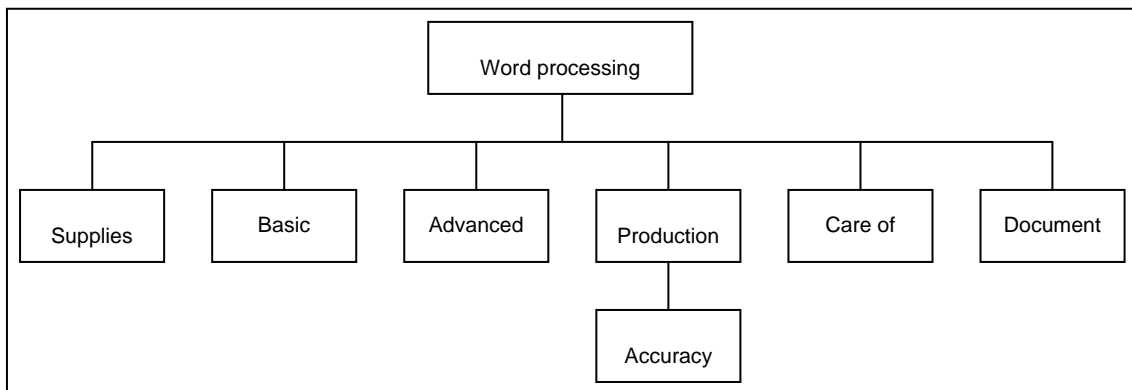
As well as identifying the chunks of information, they have to be developed into a sequence that takes the learner through the information in a logical way.



How can you break down information into small pieces? There are two methods you can use, categorizing and brainstorming.

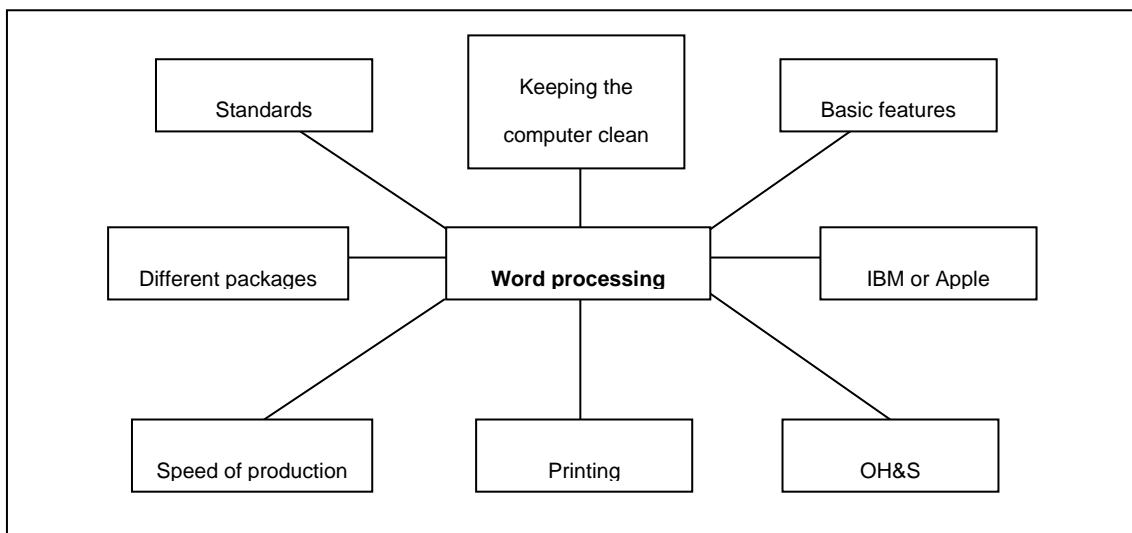
### Categorizing Information

When you categorize a subject, you take the whole topic and systematically break it into smaller parts. A flow chart is given below in figure as an example.



### 5.4 Brainstorming Information

When you brainstorm, you can work in a group which works well, because ideas are drawn from many different directions. The topic is written on a large piece of paper or on a whiteboard and everyone in the group says whatever smaller topics come to mind. An example is given in figure, below.



You could use whichever of these methods suits you, or try another one if you know of other methods.

Once you have broken down the information into smaller topics, you need to sequence them according to importance. The first step is to decide what information is essential to meet the performance criteria of the standard, and then the information that could be covered if there is time to spare. A useful model for this is the “topic target”, where the first priority is what **MUST** be known, the second priority is what **SHOULD** be known

and the third is what COULD be known. You can then apply these three options to the topics you identified above to organise the information accordingly.

### **5.3. Planning Training Sessions**

Consider the following factors when planning a training session:

- Objectives
- Task analysis
- Trainee's current knowledge
- Structure of the session
- Whether you are teaching a skill or knowledge
- Training strategies
- Materials
- Training environment
- Timing
- Assessment methods

#### **5.3.1. Identifying Objectives**

Before beginning to plan each training session it is important to understand what you want to achieve in the session.

You may be supplied with a clear training objective or you may need to develop your own.

In order to develop a training objective you will need to:

- clearly define the skill – what the trainee will do to demonstrate that they have achieved the objective;
- identify the standards by which the skill must be performed – quantity, quality, time;
- Identify the conditions under which the skill must be performed – equipment, with or without supervision.

A training objective helps to answer the following questions:

- What do the trainees need to learn?
- What does the trainee need to be able to do?
- How well do the trainees need to be able to perform the task?
- Can the trainees ask for assistance as they perform the task?
- How much information do the trainees require?
- How will the trainer know when the trainees have learnt the skill?
- What is the best way to present the information?

### Defining Parts of a Training Objective

- The Skill

This is what you want the trainees to learn, what you want them to be able to do. The objective is written with an action word that describes what the trainees will be able to do after the training.

What will the trainees do or say to show that they have gained the skill or knowledge? An objective needs to be clear and specific so that after the training it is possible to check that the trainees have achieved the skill.

- The Standards

These explain how the trainee is expected to demonstrate the skill or knowledge.

- Quantity

This may explain how many times the trainee needs to demonstrate the skill. For example, is it satisfactory if they demonstrate it once straight after the trainer has shown them, or do they need to show the trainer that they can still perform the task in a week's time? It may also mean how many times the trainee can perform the task in a set time.

- Quality

This explains the quality that is expected. It might outline the accuracy to which a product should be made, or the detail that is expected to be given in an explanation, or the quality features of the finished product.

- Time

This gives an estimate of the time taken to achieve competency in the prescribed task.

- The Conditions

This explains the conditions under which the skill needs to be demonstrated. For example, what equipment should be used or can the trainee refer to notes or a manual?

### **5.3.2. Analysing a Task**

In order to develop a training session a trainer must have a detailed knowledge of the skill or information that they will be delivering.

If a trainer is teaching a skill they will need to fully understand all that is involved in competently completing the task.

In order to analyse a task:

1. List each step in logical sequence. It may take some time to identify each step and the correct order.
2. For each step identify:
  - the knowledge that a person must have to complete the step;
  - the skills that the person must have;
  - safety or quality factors that are relevant to the step.

### **5.3.3. Checking the Trainees' Current Knowledge**

If a trainer begins the training at a level which is too low they will cover material that the trainees already know and run the risk of boring the trainees. Trainees may stop listening and then may miss out on important material later in the session.

Trainees may not have the skills or knowledge necessary to form the basis of their learning. If a trainer assumes the trainees have knowledge which they do not have, they may begin too far ahead and the trainees may become confused and frustrated.

A skilled trainer builds on the trainees' experiences. Before planning the session they will speak to the trainees and/or their supervisors to determine the level of their knowledge.

### **5.3.4. Structuring a Training Session**

A training session can be divided into three sections:

- Introduction
- Body
- Conclusion

The **introduction** is the trainer's opportunity to grab the trainees' attention.

In the **introduction** the trainer can:

- establish a comfortable atmosphere;
- check the trainees current knowledge;
- motivate the trainees, develop an interest in the material to be covered;
- link this session to previous sessions if this is appropriate;
- outline the objective, what will be covered in the session;
- set the context for the training.

In the **body** the trainer will present the material to be covered in the session. In the **body** the trainer can:

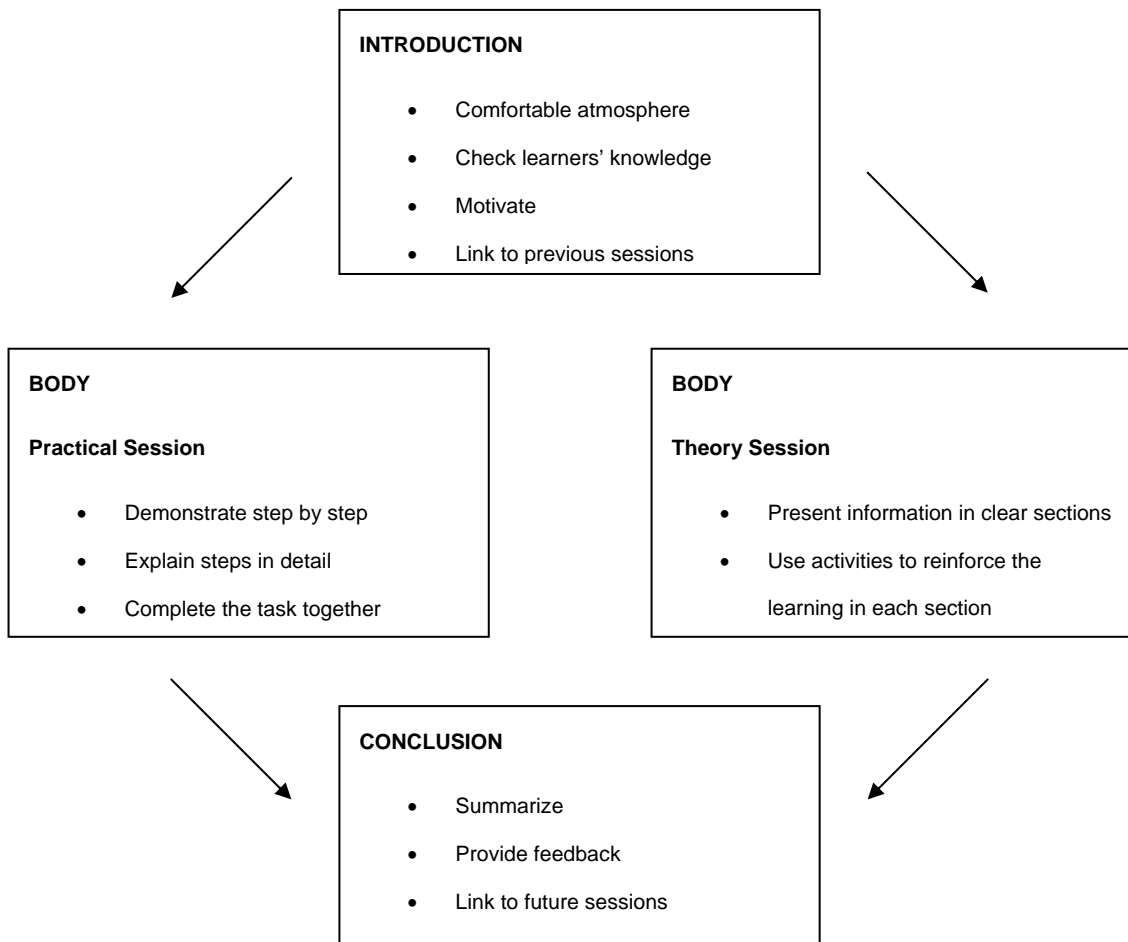
- present information;
- demonstrate;
- use activities to reinforce learning;

- check the level of trainees' understanding;
- provide feedback.

The **conclusion** is the trainer's opportunity to finish off the session leaving the trainees enthusiastic. In the **conclusion** the trainer can:

- summarize the material covered in the session;
- provide feedback about the trainees' progress;
- link the session with future sessions;
- make links between the training and the trainees' work;
- reward the trainee;
- check trainees' understanding.

Planning a Session to Teach a Skill



### 5.3.5. Developing Training Strategies

Trainers use a wide variety of strategies in their training. They aim to use strategies which will interest and stimulate their trainees to learn and develop skills.

A trainer will consider which strategies are the most appropriate to use for:

- The participants in the group – different participants may respond to different strategies.
- The number of trainees in the group – some strategies may not be appropriate for small or large groups.
- The material to be presented – a lecture may not be the most appropriate strategy to use when trying to teach a very practical skill.

Some strategies that could be used include:

- Presentations
- Demonstrations
- Group activities
- Discussions
- Role-plays
- Excursions
- One-to-one instruction
- Assignments

### 5.3.6. Timing

When planning a training session a trainer will also consider time factors.

The time of day that the training will be held.

- When can the trainees be released from their work?
- When will the trainees be most alert and receptive to the training?
- When are the necessary facilities available?

The length of the training session.

- How long can the trainees be released from their work?
- How long will it take to cover the material?
- How long will the trainees be able to concentrate?

Timing within the session.

- How long will each section of the training take?
- Will the trainer run out of time?
- Will there be time to give each section of the session the attention that it requires?

### 5.3.7. Developing Learning Resources

Most likely there are many books and other supporting information available relating to the topic you have selected for development for your learning program. It is often difficult, however, to access this material quickly and there may be other problems with its use (too bulky, no release from the library, etc.).

Sometimes equipment may be installed into your college or institute which may not have any supporting training materials with it or, if materials do come with the new equipment, they may not be suitable for you to use in a teaching-learning situation.

Many of these problems can be overcome if you develop your own learning materials. Some of the reasons you would develop your own learning and teaching materials could be:

- You can make the learning material simpler for your learners to understand by directing it at their language and skill level (some books and publications are very technical and may not suit the level of training you are providing).
- Your own materials will always "work" better for you in the training situation.
- You can add your own sketches, diagrams, pictures and graphs.
- Specific activities or self-help quiz questions can be included in your own materials.
- Providing your own materials indicates to your learners that you are trying to make your training as effective and professional as possible.

#### Developing a handout

A handout is often a printed summary of the lesson, varying in size from one to any number of pages. A hand-out can contain a range of information including:

- Step-by-step procedures on how to perform the job or task.
- The names of books, videos, or other information on the topic and where this is located.
- Labeled sketches on the topic to provide graphic information.
- Explanations of technical terms that are used.
- Safety warnings.
- Special instructions for workshop use - what tools are available, where they are stored, what materials are required and where these materials are located.
- Assignments, activities, exercises for learners to undertake.
- Photographs (some special work required here) of the equipment, the operation, or other techniques.

Handouts are cheap, quick to produce and generally not difficult to develop.

### What to Include on Your Handout

Your handout should be a support to the training - something for learners to take away and remind them of the procedures and processes of the task.

**A basic principle for handouts should be to apply**

**the Kiss Principle ...**

*Keep It Short and Simple*

Some, or all, of the following items are appropriate to include in your handout:

- The objectives of the training session/program - with associated performance, conditions and standard.
- Safety considerations.
- The key points of the lesson - perhaps with some additional information like knacks of the job, tools, etc.
- Labeled diagram, graph, etc.
- Step-by-step checklist of job or task procedures.
- Where further information or assistance, is available.
- Learner assignments, activities, tests.

Before you introduce any pictures or graphs into your handout, make sure that they are relevant to the words and the subject matter, and not covered by copyright. There is no point in having a picture in your handout just for the sake of including some graphics.

### Techniques for producing a handout

There is a wide range of techniques available to produce your handout. Some of these are:

- If possible use a desktop publishing program on a personal computer (MS Word).
- Cuttings - cartoons, graphics, from newspapers or magazines pasted into your handout.
- Clip art books or compact disc art.
- Handwritten. Provided your writing is clear and legible, there is no reason why your handouts cannot be handwritten - although there are more "professional looking" methods.

### Some Ideas for Presenting Your Handout

It is relatively easy to make an ugly-looking handout - but with just a little thought, some care and attention - the results that you achieve with the handout can be impressive. Your learners will learn more and they will appreciate your extra efforts when you provide better quality training materials.

Here are some ideas and guidelines for good looking handouts.



- Lots of white space. Never be afraid of white space. If you examine these notes, look at the white space around the pages (the margins), and the open space between the lines of text and the paragraphs. All this space helps make your handout attractive and easier to read and provides space for learners to make notes sketches if they require.
- Headings and Sub-Headings. Try to make headings and sub-headings present the major ideas. These help learners follow the information logically and quickly allow them find the information required. Material under headings should expand the information of the topic heading.
- Use stars (\*) or dots or other symbols for lists and to convey major ideas.
- Illustrations and pictures should be placed near to the text to which they refer.
- Try not to use too many typefaces or type sizes. Variation is fine, but too many may spoil the look of your handout.
- Photocopy from a prepared original.
- Printed from a computer black and white or color printer.
- Printed out, or projected from a computer using a software program such as Microsoft PowerPoint.

#### **5.4. Assessment Methods**

The aim of a training session is for the trainees to learn new skills and knowledge. At the end of the session, it is necessary to check to see if this has been achieved.

A trainer will want to check that the trainees have learnt the relevant information and processes. A trainer could use a range of strategies to do this. These include:

- a practical exercise;
- oral questions;
- written questions – these could be multiple choice or short answers;
- completion of an assignment/task;
- à simulation exercise;
- comparing previous work performance with new work performance (less wastage, better quality products, improved customer satisfaction). This could be done by consulting work records, speaking with supervisors or other relevant people, or observing the trainee in the workplace.

Often a trainer may use a combination of these. For example, a trainee may be asked to demonstrate a process. As the trainee is demonstrating, the trainer may ask questions.

## **6. DELIVERING CBT TRAINING**

### **6.1. Communication Skills**

A skilled trainer has well-developed communication skills.

Such a trainer is aware of factors that can cause communication to break down:

- using an inappropriate medium
- being distracted or interrupted
- physical factors such as a hearing impediment;
- prejudging the information
- making judgments about the speaker
- feeling uncomfortable

A person using effective listening skills:

- concentrates when someone is speaking to them;
- doesn't interrupt
- faces the speaker
- avoids distractions
- asks questions to check that they heard correctly
- nods head etc to show the speaker that they are listening
- tries to understand the information being conveyed
- keeps an open mind.

A person using effective speaking skills:

- speaks clearly and audibly
- speaks at an appropriate pace – not too fast or too slow
- changes the pitch of their voice
- faces the audience as they speak

#### **6.1.1. The Importance of Non Verbal Communication**

Only a small percentage of the information that we convey to others is communicated through the actual words spoken. Much information is conveyed through:

- gestures;
- facial expressions;
- posture;
- personal space;
- tone of voice.

Trainers need to be aware of non verbal communication so that:

- their nonverbal messages support what they are saying;
- they are perceptive to the messages that the trainees send to them.

### Questioning Skills

Questioning helps a trainer to discover:

- what a trainee already knows;
- what a trainee has learnt;
- areas that the trainee may be unsure of.

### Open Questions

These questions are far more specific, they can be answered with 'yes', 'no' or one word. Such questions can be useful to follow after an open question. A trainee may have given a detailed response but may have missed out one vital point. A trainer may use a closed question to check on that point.

### Tips When Asking Questions

- Only ask questions that you feel that the trainees are able to answer.
- Trainees may require a few seconds to think of a response. Allow them to have a few seconds to think.
- Be prepared to reword the question.
- Trainees may understand the question more clearly if it is worded differently. Try to ask open questions. This may require some practise or you may like to prepare some questions prior to each training session.
- Praise trainees for their responses.
- Use questions to maintain the attention of participants.
- Avoid being predictable in your questioning.
- Use 'safe' questions to involve quiet participants.

### Answering Questions

Trainees will ask many questions of their trainer. If trainees ask a question a trainer can give a clear response straight away. However, the trainer might choose to ask the question to the class. This can often prompt discussion and after the discussion the trainer can clarify relevant details or points. Or another trainee may be able to answer the question. This would allow the trainees to be more involved in their learning.

If a trainer is unable to answer a question they should tell the trainees how to find out the answer or tell them that they will find out and let them know.

### Giving Feedback

Trainees appreciate feedback. It enables trainees to:

- gauge how well they are learning;
- identify areas that are uncertain and develop strategies to;

### Tips for Giving Feedback

- Ask the trainees how they feel they have performed. They may be able to make many of the comments that you intended to make.
- Be aware of the trainee's self esteem. Word feedback so as to help the trainee to improve and learn rather than to point out faults.
- Begin by offering praise then discuss areas that could be improved. Avoid just telling the trainee what they did wrong. Highlight the good.
- Focus on the skill or knowledge rather than the person.
- Show respect for trainees by giving feedback in private. Select an appropriate time and place to give feedback.
- Don't give too much feedback. Give the amount of feedback that you feel the trainee will be able to absorb at the time. If you feel the need to give a great deal of feedback, consider which points will be the most beneficial to the trainee at the time. They may not be able to absorb all that you would like to say, so tell them the points that you feel will benefit them the most.
- You may need to give negative feedback. Be honest when you give such feedback, but give it in a manner which respects the trainee.
- Remember the importance of confidentiality.

### **6.1.2 Learning styles**

Each trainee has his/her own individual style of learning. Individuals differ in the way they organise their experiences into meanings, values and skills. This means that the trainer must take into account the varying styles of learning when preparing and delivering training.

Learners can be divided into three main groups with different styles of learning. Many individuals will keep to one preferred style but in some situations they may like a combination of styles.

The main styles are:

- Visual – preference for seeing what is going on. Learners with this preference enjoy reading, watching TV and like to look at photos, cartoons, plans and pictures. Useful resources to use are posters, charts, graphs, visual displays, booklets, handouts and varieties of colors and shapes.

- Auditory – learning mainly by listening. Auditory learners like to talk and prefer to hear things rather than read them. With these learners it would be good to use question and answer, lectures and stories, audio tapes, discussion pairs or groups, music or slogans.
- Kinesthetic – Learners enjoy learning by doing and remember best through practice. These learners would enjoy learning by team activities, hands-on experience, role-plays and note taking.

### 6.1.3 Barriers to Learning

Trainers are aware that differences exist amongst their trainees but it is not enough just to be aware of such differences. The important point is that the trainer recognises these differences and adopts appropriate strategies to maximise learning. Some differences are:

<b>Possible Barrier</b>	<b>Suggested Solution</b>
<p><b>Language and literacy</b></p> <p>Language difficulties caused by not being familiar with the language and language style being used by the trainer</p>	<ul style="list-style-type: none"> <li>• Modify language use</li> <li>• Use simple texts</li> <li>• Use pictorial learning materials</li> <li>• Use paired “buddy system”</li> </ul>
<p><b>Cultural background</b></p> <p>Socio-economic, religious beliefs, cultural differences, level of support</p>	<ul style="list-style-type: none"> <li>• Positive person assistance, support and advice</li> <li>• Additional training time</li> </ul>
<p><b>Physical impairment</b></p> <p>Poor sight, poor hearing, impaired dexterity, strength level</p>	<ul style="list-style-type: none"> <li>• Prepare seating arrangements</li> <li>• Give additional time to practise</li> <li>• Use pictorial aids</li> </ul>
<p><b>Previous experience/learning</b></p> <p>Level of education, type and degree of</p>	<ul style="list-style-type: none"> <li>• Check previous experiences – can they be used</li> <li>• Support transfer of skills to new</li> </ul>

previous experience	situations
<p><b>Learning styles</b></p> <p>Preferred theory to practice or vice versa, likes constant revision/practice, prefers self paced materials to presentations</p>	<ul style="list-style-type: none"> <li>• Incorporate various training methods so that most can use preferred styles</li> <li>• Encourage self-management of learning but provide advice when needed</li> </ul>
<p><b>Motivation</b></p> <p>Not highly motivated, not interested, history of failure</p>	<ul style="list-style-type: none"> <li>• Counsel where necessary</li> <li>• Identify and talk through motivational and attitudinal issues</li> <li>• Provide encouragement</li> <li>• Relate training to work experience</li> </ul>
<p><b>Personality traits</b></p> <p>Poor self image, loner, insecure about abilities</p>	<ul style="list-style-type: none"> <li>• May be related to poor motivation – counsel where necessary</li> <li>• Use the buddy system</li> <li>• Discuss preferred ways of learning</li> <li>• Encourage group participation</li> </ul>

## 6.2. Assessing Trainees

The job of a trainer is to assist trainees to gain new skills and knowledge. When assessing, the trainer provides the trainees with opportunities to demonstrate they are now competent in these areas.

A trainer will design assessment strategies that:

- will provide a reliable result;
- are fair to all trainees;
- are flexible and suit the individual needs of trainees.

The trainer may consult with the trainees about how they will be assessed and other details of the assessment.

The aim is not to surprise the trainees with a test. It is to allow the trainees to have the

best opportunity to demonstrate that they have gained new skills and knowledge.

### **6.3. Preparing the Training Area**

Importantly, your learners must be encouraged to become involved in the learning experiences. You will need to arrange the classroom or the workshop to reflect this principle.

Some items that you will need to take care of when preparing for classroom presentations are:

- Move tables to form a U-shaped learning environment where learners want to participate with you as the trainer and each other as learners.
- Have your overhead projector and screen set up so that everyone can see easily. The same with your whiteboard. Also make sure you have overhead pens and that they work.
- If you want to prepare some drawings or explanations on the reverse side of the whiteboard, or on butcher's paper, have this ready. Charts, models and so on, which relate to the lesson can also be placed in position before the lesson starts. You can turn them around to face the wall and use them as a "surprise" element in the lesson if you want to.
- Check the lighting. Make sure the lights work and that all learners can see you – the trainer – and what you are doing.

Some items you will need to give attention to when preparing for training presentations in the workshop are:

- Clean the area up – make the workshop neat and tidy. Put away any tools or other materials that are not needed for the lesson. Make your training venue a place where your learners want to be.
  - Turn off any machinery that is not going to be used. Try to create an area without too much noise so that learners can hear you and you are not distracted by other noise.
- \* Arrange the area so that trainees can easily see what you are doing if you are providing practical demonstrations. This could also mean checking and adjusting the lighting in the area.
- \* Samples of work – good and bad – are useful in practical workshop sessions to show learners the quality of work that is expected.

- \* Have all your tools, materials and any other equipment prepared and ready. Make sure the tools work and that the materials are in appropriate condition.
- \* Have any training aids – charts, samples, whiteboards, and so on, ready. Place these in position before the lesson and check that they will be able to be seen by your learners.
- \* Learners will become restless if they can't see, or become uncomfortable. If it's appropriate, a few stools or chairs around the learning area can help overcome this.
- \* Make sure your learners can see your demonstrations and – if necessary – repeat the demonstrations for those who may not have been able to see the first time.
- \* Make sure – during and at the end of the lesson – that you inform your learners of your availability and where and when you will be able to provide any extra help and training assistance that they may require.

#### **6.4. MOTIVATE YOUR LEARNERS**

Preparing your trainees also means encouraging and motivating them to learn. As a teacher and a trainer you will need to adopt a warm, approachable, friendly and confident manner. Introduce yourself and welcome your learners to the training. Use questioning to ask them about their previous experiences of the job. Make them the most important part of the training.

Your approach must be friendly and supportive towards your learners. You must be helpful, positive and motivational and quickly gain their respect and attention.

#### **6.5. USE SUITABLE LEARNING STRATEGIES**

Learning strategies with adult learners are essentially about *learner involvement*. If adult learners want to take an active part in the learning processes then the trainer must use learning strategies that create opportunities for this to occur.



Some effective learning and training strategies for the use of trainers of adults follow:

### 6.6. Strategies for Getting the Attention of Your Adult Learners

- \* *Questioning*  
The interest of your adult learners can be aroused and maintained during the training through the use of a range of varied questioning techniques by the trainer.
  
- \* *Show a completed job or product.*  
Displaying the end product of the lesson that learners are to complete provides adults with motivation. Learners will often forget how quickly you demonstrated the task, but will always remember how well you demonstrated the task.
  
- \* *Discussion group.*  
Form learners into small groups to discuss the job, or task, and how they can best perform the job.
  
- \* *Trainer experiences.*  
Describe a time – in industry or similar – when you were required to develop a similar skill and how you went about doing the job. Remember that you are the subject matter expert and if you can establish your credentials learners will respect and learn more from you.

### 6.7. TRAINING METHODS

Here are some training methods that you might want to consider to use for you to deliver your training program. With technical and vocational training and teaching, however, concentrate wherever possible on practical tasks and activities for your learners.

Training Method	Description
Brainstorming	Learners think up lots of ideas about the subject without making any judgements about them. Ideas are then organised into groups.

Buzz Groups	The learner group is formed into small teams or buzz groups - each buzz group has a specific task to perform in a set time.
Game	A short fun event that usually involves words and actions to achieve the learning outcomes.
Case Study or Problem Solving Exercise	Description of an actual or imaginary situation is presented - perhaps an unsafe workplace practice – and learners analyse the case and work out how they would deal with the situation.
Quiz	Questions are pre-set by the teacher - or the learners - for an oral question and answer session.
Role Play	Learners, and the trainer, act out situations related to the subject.
Assignment	An activity for learners to undertake between sessions. Can be set for individuals, or groups.
Written Report	Trainees investigate and develop a report for presentation on a set topic.
Survey	Learners ask a group of people questions and examine the answers.
Demonstration	An expert – can be the teacher or the trainer – show and tell trainees how to undertake the skill- operate a machine, make a work-piece and so on.
Excursion	Group or individual activity where learners visit an object or place for on-site observation.
Guest Speaker	Industry or job expert talks to trainees about a particular job or expertise.
Lecture	Organised mostly one-way presentation by a speaker to a group of listening learners. Can become boring.

These are some useful techniques that you can use during the presentation of your training program. Importantly, however, with technical and vocational training and education, the best training technique is in the practical area with activities for learners.

## **7. ASSESSMENT**

### **7.1. Overview of assessment**

Assessment is the process of collecting evidence and making judgments on the nature and extent of progress toward the performance requirements set out in a standard of a learning outcome.

Assessment is also about making a judgment, at the appropriate point, as to whether the competency has been achieved.

Key features of CBT assessment are that it is generally:

- Criterion based – assessed against standard criteria or benchmarks (Depending on circumstances, benchmarks may be competency standards, learning outcomes or other performance outcomes)
- Evidence-based – decisions are based on the evidence provided by the trainee
- Formative (progressive) rather than summative (conducted merely at the end of the course)
- Participatory - trainees are involved in all aspects of the assessment process
- Sufficient - There must be enough evidence to demonstrate consistency of competency
- Current - The evidence must demonstrate current performance of competency.

The role of an assessor is to compare a participant's evidence against the criteria for assessment and make a judgment about whether competency has been achieved. To undertake this role an assessor must be able to:

- Interpret the criteria for assessment
- Demonstrate high skills in the area being assessed
- Demonstrate interpersonal skills
- Apply the relevant assessment techniques
- Ensure that evidence provided is sufficient
- Make impartial judgments

### **7.2. Role of the Training Organization in Assessing**

Registered Training organizations are required to identify, negotiate, plan and implement appropriate learning and assessment strategies to meet the needs of clients including:

- Assessment strategies for each Training Package qualification and accredited course on its scope of registration
- Validation of assessment strategies

### **7.3. Basic Principles of CBT Assessment**

#### Validity

- The evidence will prove that the individual has the required skills and knowledge as specified in the relevant unit of competency
- Will meet each element of the benchmark
- Competencies (benchmarks) are assessed holistically

#### Reliability

- The evidence will prove that the individual has the required skills and knowledge as specified in the relevant unit of competency
- Will meet each element of the benchmark
- Competencies (benchmarks) are assessed holistically

#### Fairness

- The assessor objectively considers all evidence, is open and transparent about all assessment decisions, and takes into account relevant characteristics and needs of the candidate

#### Flexibility

- Assessments can be either on- or off- the job, and a mutually convenient times and situations

### **7.4. Forms of evidence**

- Demonstration of real work
- Demonstration in a simulated environment
- Contents of a portfolio
- Role-play
- Video recordings of a performance
- Project-based
- Products made
- Case studies
- Processes used and documented
- Answers to questions
- Procedures completed
- Reports from third parties (references)

Assessment tools and methods must collect enough evidence in order for the assessor to be enabled to make the assessment judgment

Usually this means collecting evidence that demonstrates competency over a time period and in different situations

A good way of ensuring sufficient evidence is through using a combination of different methods and tools

### Direct Evidence

Direct evidence is obtained when an assessor observes the candidate's performance and makes a judgment about whether the candidate has competently performed the required task or series of tasks. This observation could be conducted in a variety of ways. For example the assessor could observe the candidate performing a range of tasks in the workplace, and question the candidate; view a video of the candidate's performance; or observe the candidate's performance in a simulated workplace.

### Indirect Evidence

Indirect evidence is used when it is not possible or desirable for a candidate to be observed during their actual performance of tasks in the workplace; it may be too costly, involve risks or potentially breach confidentiality or privacy. Assessment methods used to collect indirect evidence could include examination of a finished product with evidence to authenticate that it is the candidate's work.

### Supplementary Evidence

Supplementary evidence is additional evidence supporting direct and indirect evidence. It is often obtained through third party sources, for example, from members of the candidate's work team or managers, work journals or evidence of completed training.

### Combination of Evidence

Usually, a combination of types of evidence is used to assess competence. For example, in the automotive sector, you could observe someone on the job performing a task such as inspecting brakes, ask them about possible solutions in a simulated situation or both.

## **7.5. Assessment methods**

The following are examples of a few methods that can be used to assess competency:

<b>METHOD</b>	<b>EXAMPLE</b>
Direct observation	<ul style="list-style-type: none"><li>• Real work and/or real time activities</li><li>• Work activities in simulated workplace environment</li></ul>
Questioning	<ul style="list-style-type: none"><li>• Self-assessment</li><li>• Verbal questioning</li><li>• Written questioning (including computer-based)</li><li>• Interview</li><li>• Questionnaire</li><li>• Verbal or written examinations</li></ul>

Review of products	<ul style="list-style-type: none"> <li>• Work samples or products</li> <li>• Products as a result of a project</li> </ul>
Structured activities	<ul style="list-style-type: none"> <li>• Projects</li> <li>• Presentation</li> <li>• Role-play</li> <li>• Case study</li> <li>• Fault finding</li> </ul>
Portfolio	<ul style="list-style-type: none"> <li>• Documents such as work samples</li> <li>• Product with supporting documentation</li> <li>• Historical evidence</li> <li>• Journal/log book</li> <li>• Information about life experience</li> <li>• Collecting of work samples compiled by candidate</li> </ul>
Third party feedback	<ul style="list-style-type: none"> <li>• Testimonials or reports from employers or supervisors</li> <li>• Evidence of training</li> <li>• Interview employer, supervisor, peer</li> <li>• Authenticated prior achievements</li> </ul>

## 7.6. Assessment Tools

Assessment tools are for gathering evidence based on the selected assessment methods. They can also be procedures to be followed when conducting assessment.

Assessment tools need to be designed carefully to ensure that:

- Assessments are conducted according to the principles of assessment
- The collected evidence meets the rules of evidence
- All evidence requirements are addressed
- The needs of the trainees are taken into account

### *The Purpose of Assessment Tools*

<b>Purpose of Assessment Tool</b>	<b>Example of Assessment Tool</b>
To provide guidance and structure for the candidate/assessor in collecting evidence	A checklist to be used in the demonstration of a series of tasks
To guide and support the candidate in understanding and participating in the assessment process	Instructions to the candidate about how to be involved in a role-play activity
To give clarity and confidence to the assessor and/or candidate in working through the process	Clear criteria for a product to be assessed against
To define the key performance indicators to be met by the candidate	List of criteria for a candidate when being involved in a simulation, so they

	know what particular areas will be assessed
To ensure the rules of evidence and principles of assessment are addressed in the assessment process	Matrix of assessment methods against the evidence requirements
To be used as a recording and reporting mechanism	List of questions with space to record responses and feedback given, as well as whether candidate is competent or whether future evidence is required
To provide objectivity and consistency in evidence collection	Set of predetermined questions to be asked
To enable recognition	Self-assessment checklist, with suggestions of types of evidence
To provide a tool to document the need for further action	Any checklists that provide room for feedback and advice given for further action

### 7.7. Assessment Validation

The most common process for assessment validation is through moderation. It is a process of comparing standards of assessment across different courses, institutions and/or organizations to ensure assessments are valid, reliable and fair.

Assessment moderation can be conducted before, during and after assessment.

Assessment validation involves comparing, evaluating and reviewing assessment processes, methods and tools and the subsequent assessment decisions. It can include assessment moderation activities in which assessors discuss and reach agreement about assessment processes and outcomes in a particular industry or industry sector, developing a shared understanding of specific Training Packages.

The benchmarks for assessment validation is the competency standard.

## **8. EVALUATING TRAINING**

### **8.1. Record Training Information**

There are certain aspects of the training program that need to be recorded. Records provide the details that people might have to refer back to in the future. For example:

- Participants want to check on their results
- A new trainer wants to find out how many participants have completed training in a certain skill
- The finance department needs to quote some figures about the cost of training
- The training manager needs to include in a report the number of people enrolling in a program
- A supervisor needs to know which participants have attended training sessions
- Each organization is a bit different so it is important to find out what record keeping systems already exist in your organization. You will need to find out where the records are kept and the requirements for recording such as what information you need to record, where it is kept and security requirements.

### **8.2. Who has access to training records?**

When keeping records of training it is important that they are kept secure and confidential. Your organization will have guidelines on who has access and when they can be accessed. These should be consulted before access is given to ensure they are authorized. Some of the people who may need access are:

- Participants
- Other trainers
- Assessors
- Managers / supervisors
- Government regulatory bodies

### **8.3. What is Evaluation?**

Evaluation is about gathering information or feedback from everyone involved about the effectiveness of the training program. Evaluation gives you the information that allows you to 'fine tune' or 'carry out major repairs' on your program.

Evaluation should be conducted as an ongoing and integral part of a training program rather than just one final evaluation at the end.

When you first start use evaluation techniques, participants may feel uncomfortable about being involved. This may occur if they are worried about being critical of both the trainer and the program. However, without input from participants you will not get an effective evaluation. As a trainer you need to develop an atmosphere of trust in which



participants feel comfortable about giving feedback, both positive and negative.

#### **8.4. Why do you need to Evaluate Training?**

There are four main reasons why we may be required to evaluate our or someone else's training.

##### Organizational requirement

Management may require training to be evaluated as part of organizational procedures or reviews. Do you have a viable product / service?

##### Justification

To justify why the training is taking place. Can you justify the continuation of the training?

##### Assurance

To assess the ongoing quality of the training. Is the program up to date as far as content, materials and presentations?

##### Improvement / review

To improve the training and assess whether it is meeting current needs. Have the identified needs for the program changed over time, and does the program now meet these changed needs?

To make sure that you can respond to all of these areas, it is important to carry out systematic and ongoing review and reflection. This involves:

- Looking back to identify exactly what did happen
- Analyzing this to identify changes and improvements that need to be made
- Communicating any recommendations coming from the analysis
- Implementing the changes recommended

#### **8.5. What do you evaluate?**

To ensure that evaluation is effective there are a number of key areas that need to be covered.

##### The training program

The training program relates to content. You will be looking at the structure of the program, the resources, methods and activities used.

##### The trainer

Feedback of the trainer can help identify any training skills and methods that do and / or do not work. When evaluating the trainer you are evaluating their effectiveness in being able to facilitate learning.

### The participants

Evaluation of the participants has to do with the effect of the training on their behavior, attitudes and knowledge. How successful was the training on developing competence in their workplace?

### The results

If training has been effective then there should be observable changes in the workplace or organization.

## **8.6. When do you evaluate?**

Evaluation should be taking place all through training. However, depending on what you are evaluating will often influence when you can evaluate. If evaluating the effectiveness of training on workplace performance then the best time to evaluate would be some time after participants have had time to go back and apply the training. Evaluation the same afternoon as training would not be very effective.

When you carry out evaluation you will need to consider things such as:

- How long will participants need to practice and apply the new skills and information?
- How long will it take before changes in productivity can be witnessed?
- What can be observed and evaluated during training?

## **8.7. Who do you get the information from?**

The information you need in order to evaluate a training program can be gathered from a variety of people.

### Participants

Participants can provide valuable information in order to evaluate the effectiveness of the training. As they are the ones involved in the training they are the ones who can provide feedback regarding the trainer, the content and structure of the program and any improvements in their performance.

### Trainer

The trainer also can offer valuable information regarding many aspects of the training program. As the trainer is the one who is presenting the information, their own reflections on how well they presented the training program and its content is important. They can also offer information on how well they thought

participants learned new information and how well they are progressing. The trainer can also provide information regarding on the job results if they are in the workplace. However, it is generally supervisors and managers who see on the job results more than the trainer.

### Other people

Other people who might evaluate the effectiveness of a training program include supervisors, managers and assessors. It is difficult for these people to evaluate the trainer or the content of the training program unless they are involved and can observe these areas. However, these people are valuable for gathering information on participant progress and on the job results.

## **8.8. Collecting feedback**

To evaluate training you need to collect feedback and information about different aspects of your training. The information that you collect will be of two different kinds.

### Qualitative

Qualitative data is difficult to measure and quantify but allows for feelings and attitudes to be included. Examples include:

- Participant attitude to program structure.
- How participants feel about the information provided.

### Quantitative

Quantitative data are easy to measure and quantify and relate to outputs, costs and time. Examples include:

- Number of participants completing the program.
- Costs of providing the training.

Qualitative data is usually collected from open ended questions and should be quoted as it is, or grouped together into similar responses. Care must be taken not to interpret the response. The people reading the report will then have the opportunity to draw their own conclusions.

When collecting information to use for evaluation purposes, it is important to consider the question of ethical practices. Whenever we ask people for their opinions and judgments about aspects of their work or training we are entering a very private domain. Many people feel very threatened and even fearful when they are asked for this kind of information because they may not be sure exactly how it is going to be used. Confidentiality and privacy must always be uppermost in your mind when you gather information. If you are able to offer anonymity to your participants when they answer

questions or give feedback you may receive a wider range of open responses.

### **8.9. Evaluation criteria**

There are several requirements that all evaluation methods must meet. No matter which method you select it should satisfy the following five criteria:

#### Valid

Does the evaluation method measure what it is designed to measure? For example, if you want to gather information on whether participants have learnt to drive a forklift would you give them a questionnaire or observe them driving a forklift?

#### Reliable

Is the information that the evaluation method has gathered consistent? If the same questionnaire was administered to the same participant two days later, the results should be the same, providing there has not been any new training.

#### Clear

All instructions and information given to the person providing feedback should be clear and simple to understand. Make sure that there are no ambiguities in any part of the process.

#### Brief

Keep the extent of the evaluation – the number of questions, for example – to a manageable level. If there is too much for participants to wade through, they may lose concentration or become frustrated. This could result in results not being consistent, not accurate and not completed.

#### Economical

The method that you use should not be too time consuming or costly to administer and analyze. If, for example, you have a large group of participants, a survey would be easier to administer than, say, a one-to-one interview.

You will also need to keep in mind the ease of scoring or analyzing the information that has been gathered and the usefulness of the information.

### **8.10. Evaluation methods**

There are many methods that you can use to evaluate your training program. Which ones you choose will depend on the area that you are evaluating and the kind of information you need.

<b>Method</b>	<b>Advantages</b>	<b>Disadvantages</b>
Observation	<ul style="list-style-type: none"> <li>• Easy to see a skill being performed competently</li> <li>• Non-verbal language can provide valuable information</li> </ul>	<ul style="list-style-type: none"> <li>• Intrusive</li> <li>• Is open to misinterpretation</li> </ul>
Interviews	<ul style="list-style-type: none"> <li>• Opportunity to provide opinions</li> <li>• Can monitor verbal and non-verbal responses</li> </ul>	<ul style="list-style-type: none"> <li>• Time consuming</li> <li>• Interviewer may influence responses</li> </ul>
Performance appraisals	<ul style="list-style-type: none"> <li>• Can discuss performance</li> <li>• Identify areas for improvement</li> </ul>	<ul style="list-style-type: none"> <li>• Participants information is usually confidential</li> </ul>
Self evaluation	<ul style="list-style-type: none"> <li>• Identifies own strengths and weaknesses</li> <li>• Helps reflect on own performance</li> </ul>	<ul style="list-style-type: none"> <li>• Can be time consuming</li> <li>• Participants may find it difficult to do</li> </ul>
Cos-Benefit analysis	<ul style="list-style-type: none"> <li>• Identify how much the program costs</li> <li>• Can cover many areas</li> </ul>	<ul style="list-style-type: none"> <li>• Time consuming</li> <li>• Cannot always attribute dollar value to all areas</li> </ul>
Questionnaires	<ul style="list-style-type: none"> <li>• Save time, economical to administer</li> <li>• Can cover a large number of participants</li> </ul>	<ul style="list-style-type: none"> <li>• Time consuming and difficult to prepare</li> <li>• May lose concentration if too lengthy</li> </ul>

By using a range of methods you will be able to gather more reliable information. If you use an interview and a questionnaire, for example, you can crosscheck the responses for accuracy.

Another important point to remember is that you should only collect information that you will know will be of use to you in your evaluation.

For cost-benefit analysis to be an effective way of evaluating training all four areas must be analysed and attributed a cost/benefit.

If you only evaluate one or two of these areas, cost effectiveness should not be used as the sole method of evaluation.

### **8.10.1. Effective questioning**

When collecting feedback on your training you can use questions in a variety of ways. You may use them in a written questionnaire, in an interview or when observing some performance of a task in order to check their understanding.

### **8.10.2. Interviews**

An interview is a set of questions, asked by the interviewer, where participant's answers are either summarized or recorded by the interviewer. Interviews provide the opportunity for participants to give their opinions and these can then be probed in detail by the interviewer.

If you pick up on some not-verbal responses that do not agree with the verbal message, you are able to follow up with another question during the interview to determine why this is occurring.

Some examples of interview questions are:

- What aspects of your safety training have you put into action? Please explain.
- What aspects of the training program have you found most useful? Please explain.

Before you start the actual interview make sure that you have clearly identified the purpose of the interview, and structured the questions appropriately. There are a number of things to keep in mind to ensure that the questions will be listened to and understood by all participants.

- Ask questions clearly and at normal pace
- Use simple sentences
- Repeat the question if necessary
- Rephrase the question if necessary

### **8.10.3. Questionnaires**

A Questionnaire is a set of written questions that are answered in writing by participants. The main advantage of using questionnaires is that they save time and are economical to administer.

When questionnaires are used to gather evaluative information, it is important that you:

- Prepare the questionnaire carefully, giving consideration to the type of information required.
- Ensure that questions are written clearly and unambiguously.
- Provide all the information that participants need in order to respond validly to the questionnaire and to return it promptly.
- Avoid lengthy questionnaires.

### **8.10.4. Designing your questions**

When designing your evaluation you will need to think about the questions that you will need to ask of each area. Some examples of the questions you could ask are:

#### Questions about the trainer

- Did the trainer present information in a clear manner?
- Was the purpose of the training clearly explained?
- Did the trainer provide opportunities to ask questions?

#### Questions about the training program

- Was the program well structured?
- Was the program relevant to your work?
- Were the training resources useful?

#### Questions about participants

- Did participants achieve the training outcomes?
- Were participants able to apply the information in their workplace?
- Did participants feel that their needs were met?

#### Questions about the training results

- Did the training increase productivity?
- Did the training decrease workplace accidents?
- Did the training result in better workplace performance?

### **8.10.5. Analysing feedback**

Because you are gathering information during the training program you should not wait until the end to analyze the responses from participants. You will be able to make ongoing decisions about modifications based on the analysis of participant's feedback as soon as it is collected.

The process of analyzing data can be personally challenging. You know that reflecting on some sorts of feedback can be hard. Some trainers shy away from doing any analysis because of their fear of finding something negative. Most trainers, however, realize their professional standing is firmly linked with being accountable and responsible. They want to help improve their enterprise in areas such as productivity, quality, morale, safety and self-esteem, and they want to know if they are achieving results in any of these areas.

Information you have gathered for evaluation needs to be organized so that it can be easily interpreted. You may want to group information together in the form of a separate document or report or you may want to enter the information into a spreadsheet computer program so that you can display the information as a graph or chart.

If you are using a computer to display the information for you, make sure that you have a thorough understanding of the data before you draw any conclusions and present your information.

You should also consider the impact that different presentations could have on interested

people. Take into account what they like and expect so that you can present your information.

#### **8.10.6. What do you do with the results?**

Once you have gathered your information and analyzed it, you are in a position to draw some conclusions and make some recommendations. These might relate to:

- Skills of the trainer
- Availability of resources
- Training methods used
- Clarity of program aims and purpose

Changes recommended by the evaluation might occur throughout your training program. Participants may make observations in the early stages of the program which you will have the opportunity to respond to. Feedback should be accepted as constructive advice, acknowledged and incorporated wherever possible.

As you gather the information about your training program, the people involved in the evaluation may be very interested in what will be done with the findings. You will be able to keep faith with these people by demonstrating that you have listened to their input, have valued their contribution and incorporated their feedback where it is appropriate.

While every Endeavour needs to be made to be made to meet individual needs, you may have difficulty modifying the entire program if only one person thinks it should change.

If the analysis of the information leads you to draw a positive conclusion, then everything is fine. However, it is always a good idea to keep reviewing your approach even when there don't appear to be any negative results.

#### **8.11. Reporting**

After you have analyzed your findings for the overall program, you will need to develop a report. This report will provide valuable information on the background, methodology and outcomes of your evaluation to such people as:

- Supervisors / managers
- Human resources department
- Government regulatory bodies
- Funding departments

A few points should be kept in mind when preparing to communicate your evaluation findings:

- Pick the right time – this should be as soon as possible after the conclusion of the program.



- Target specific people and make the message meet their individual needs.
- Select the media carefully; should you write a memo or make an oral presentation to a group?
- Remove the emotion and bias from the communication.
- Detach yourself from the findings.

The information you gathered may have to be presented to other people in your organization. Two types of reports are:

- Review and update reports – which reflect on progress, and how the program is being fine tuned to take into account the feedback received.
- Final reports – which present the full range of findings, draw final conclusions and make recommendations for future programs.

## 9. MANAGING AND PROMOTING TRAINING PROGRAMS

The following are administrative details that you need to take into consideration as you run your training program:

- Keeping records of the trainees' progress through the program
- Keeping records of the evaluation of your programs
- Keeping records of internal and external resource people
- Following costing procedures to keep your program within budget
- Following smooth administrative procedures to ensure that your program runs smoothly
- Maintaining a current list of relevant external training programs
- Briefing all people involved in the training program

### 9.1. Keeping Records

Records are one of the most important aspects of managing your training program. Some of the activities and resources that will need to be recorded are given in the following table:

<b>Record</b>	<b>Purpose</b>
People enrolling in the program	<ul style="list-style-type: none"><li>• Keep accurate records for upcoming classes to ensure cancellations are filled</li></ul>
People invited to attend	<ul style="list-style-type: none"><li>• For statistics, follow-up letters and follow-up evaluation</li></ul>
People who have actually attended sessions	
Trainers you can call upon to conduct sessions – external and internal	<ul style="list-style-type: none"><li>• Keeping an up-to-date file can save considerable time when you are trying to locate people to run sessions</li></ul>
External training programs which can enhance what you currently offer	<ul style="list-style-type: none"><li>• An organized list can save you valuable time in looking up this information</li></ul>
Results of evaluation of your programs	<ul style="list-style-type: none"><li>• Vital information for improving current training programs and important supporting information when seeking a new budget or additional resources</li></ul>
Rooms available	<ul style="list-style-type: none"><li>• Keeping a list of available premises for specific purpose programs enables you to schedule programs more easily</li><li>• A booking system will avoid embarrassing clashes and over-booking</li></ul>
Costing the training programs	<ul style="list-style-type: none"><li>• For keeping track of expenditures and income. Your accounting department may help you set up a suitable record keeping system</li></ul>

## 9.2. Setting up the Records and Systems

When you are ready to set up a new record keeping system, it is important to consider:

- What information (reports, specific details, general trends) will you want to retrieve from your records?
- How will you keep the records – e.g. On paper or on computerized databases
- How will you maintain the records – keep them up to date, delete old information and assure accuracy. ((For instance, how will you track trainers who add to their area of specialty, keep track of good trainers etc.)
- Who will perform the necessary roles in maintaining your record system – set up databases, enter new data and modify data.

## 9.3. Costing your Training Program

It is very important to establish a budget for the conduct of a training program. The budget should take all components into consideration. Most managers focus on the bottom line (the dollars and cents!!) as part of their evaluation of your programs. If you have recorded accurate costs and can prove that you have kept within the program budget, your program has a much greater chance of receiving on-going support.

Each organization is different and handles things in different ways. Many organisations have formulas (see handout) for calculating how much it costs to use a room, to employ a certain staff member at a certain level and other costs that are often “hidden”.

As a general guide there are three types of costs that are hidden:

<b>Type of Costs</b>	<b>Examples</b>
Preparation	Typing, phone calls, faxes, photocopying, course design, resource materials etc.
Direct costs	Trainers’ wages, trainees’ wages, guest speaker/visiting expert fees, venue costs, meals, accommodation, travel, and any other costs related to running the program
Administrative costs	Trainers’ wages for evaluation of the course, transport, hire costs and consumables

## 9.4. Promoting Training Programs

People are more likely to support training programs when they understand how they can be of benefit to them. There are two primary groups of people whose support is important to your program, the people who make the decisions about running the program and the people who attend the program.

## 9.5. What do managers need to know?

Managers are particularly interested in the following key areas:

- How will the training program improve productivity
- Why time and money should be invested in the training program
- How the program will help the organization meet its goal
- How much work the learners will miss

## 9.6. What do potential learners need to know?

- A promotion or pay rise
- Increased self esteem
- Increased efficiency in the job
- Increased competency or gaining of new skills
- Familiarity with a new system or machine

### How do you promote training?

When you are promoting the training program, it is important to consider the following:

- Who are you trying to reach? Who is the target group?
- What are the benefits to the target group attending the training?
- How can you communicate this?
- How can you promote the training to the group?

The methods that you use to present to the managers or key decision makers will differ from those you use to promote the program to learners. Gathering support from the managers or those in control of training funds is an on-going process which requires research and planning.

Information that you present to management about prospective training needs to be clear and concise. In a presentation of promotional material you could include:

- The facts: the training you have identified, evidence that it is needed and how the program will meet these needs
- The link to organizational goals
- The costs and time frame involved
- The evaluation of the program afterwards to show that it met its stated objectives

Having worked out the information you are going to provide, there are a number of ways you can present this information. You could have a meeting with one or more key people, present the information to a group, distribute a written presentation, or a

combination of all of these.

Information that you present to potential learners can be put together in a variety of ways. You could distribute a newsletter, brochures, posters or send e-mail. When you are promoting the program to learners, you must make sure that you include enough details so that they can make an informed decision. You could include, for example:

- A summary of the content of a program
- A brief description of the expected goals
- The specific benefits to the learner
- The venue, times, dates and any extra resources they need
- The cost if there is any
- How to enroll
- Who to contact for more details

### **9.7. How do you evaluate the Promotion?**

You need to monitor the effectiveness of your promotional activities to make sure that the information is being communicated to the right people in the right way. There are many methods you can use to monitor the effectiveness of your promotions. For example:

- Monitor enrolment numbers and where learners have found out about the program
- Conduct surveys to find out how aware they are of your program and its benefits
- Talk to people and get informal feedback on how much they know about the programs you are involved in
- Try different forms of promotion and use any of these methods to monitor their success, so you will know what works for particular groups

**Appendix M:**

**Assessment Tools Used for the Second Pilot Training  
Course**

Appendix L-1: WORKPLACE TASK DISTRIBUTION for INDUSTRY ATTACHMENT

TASKS	WORKPLACE
<b>Apply Safe Work Practices</b>	
Identify workshop hazards	Mega Motor
Identify fire extinguishers and applications	
Demonstrate fire extinguisher use	
Demonstrate safe use of car lift	
Demonstrate safe use of alligator jack and stands	Saipa Yadak
<b>Workplace Tools and Equipment</b>	
Dismantle and assemble engine components	Mega motor
Measure engine components	
Demonstrate use of specialised tools	
<b>Inspect and Service Engines</b>	
Check engine oil and coolant levels	Mega Motor
Inspect cooling system for leaks/damage	
Check for engine oil leaks	
Inspect drive belts for wear/damage	
Check timing mark alignment	
Remove and replace rocker cover gasket	
Change engine oil and filter	
Check and adjust valve clearances	
Check for abnormal noises	Sapa Yadak
Carry out compression test	
Carry out manifold vacuum test	
<b>Service Petrol Fuel Systems</b>	
Inspect fuel system for leaks/damage	Saipa Yadak
Remove and replace mechanical/electric fuel pumps	
Dismantle and assemble mechanical/electric fuel pumps	
Check EFI fuel system pressure	
Remove and replace fuel injectors	
Dismantle and assemble carburettor and adjust float level	Mega Motor
Adjust and tune carburettor	
<b>Inspect and Service Brakes</b>	
Check brake pedal travel	Saipa Yadak
Check brake pedal free play	
Measure disc run out, thickness and wear	
Adjust drum brakes	
Test brake fluid	
Bleed and flush brake fluid	
Remove and replace brake pads	
Remove and replace brake callipers	
Complete workplace documentation	
Complete work within industry timelines	
<b>Test , Service and Charge Batteries</b>	
Test battery using voltmeter and hydrometer	Saipa Yadak
Load test battery	
Recharge battery	

TASKS	WORKPLACE
Jump start car	
Repair Single Electrical Circuits	
Measure voltage, current and resistance in a circuit	Saipa Yadak
Test starter circuit for voltage and voltage drop	
Test circuit for earths, shorts and grounding	
Interpret wiring diagram	
Read in the Workplace	
Research workshop manual for specific procedures	Saipa Yadak
Interpret written instructions	
Locate technical specifications in workshop manuals	
Access specific internet web sites	
Navigate web sites	
Service Automatic Transmissions	
Inspect fluid level and condition	Saipa Yadak
Change fluid and filter	
Check safety switch operation	
Inspect and Service Steering System	
Inspect condition of manual steering rack assembly	Saipa Yadak
Inspect condition of manual steering box assembly	
Inspect condition of power steering rack assembly	
Inspect condition of steering assembly and associated components	
Complete workplace report	



## Appendix L-2: ASSESSMENT MATRIX FOR UNIT OF COMPETENCE

<b>National ID</b>	AUR30405
<b>Qualification</b>	Certificate III in Automotive Mechanical Technology
<b>Competency</b>	Inspect and service brake systems
<b>National Code</b>	AURT210170A
<b>Description</b>	This unit covers the competence required to inspect and service of braking systems and/or associated components, including pneumatic over hydraulic, air, hand and parking brake systems in an automotive retail, service and/or repair context. The unit includes identification and confirmation of work requirement, preparation for work, conduct of brake system wear analysis, servicing of braking systems and completion of work finalisation processes, including clean-up and documentation.

ELEMENTS /PERFORMANCE CRITERIA	Assessment methods/task See Assessment Guide below for description		
	KNOWLEDGE TEST	ASSESSMENT TASK	3rd PARTY
<b>1. Prepare to undertake braking system inspection</b>			
1.1 Nature and scope of work requirements are identified and confirmed			
1.2 OH&S requirements, including individual State/Territory regulatory requirements and personal protection needs are observed throughout the work			
1.3 Procedures and information such as workshop manuals and specifications, and tooling required, are sourced			
1.4 Methods appropriate to the circumstances are selected and prepared in accordance with standard operating procedures			
1.5 Resources required for inspection of braking systems are sourced and support equipment is identified and prepared			
1.6 Warnings in relation to working with braking systems are observed			
<b>2. Conduct braking system wear analysis</b>			

ELEMENTS /PERFORMANCE CRITERIA	Assessment methods/task See Assessment Guide below for description		
	KNOWLEDGE TEST	ASSESSMENT TASK	3rd PARTY
2.1 Braking system analysis is implemented in accordance with road safety legislation, workplace procedures and manufacturer/component supplier specifications			
2.2 Brake wear measurement results are compared with manufacturer/component supplier specifications to indicate compliance or non-compliance			
2.3 Results are documented with evidence and supporting information and recommendation(s) made			
2.4 Report is processed in accordance with workplace procedures			
<b>3. Prepare to service braking system and/or associated components</b>			
3.1 OH&S requirements, including individual State/Territory regulatory requirements and personal protection needs are observed throughout the work			
3.2 Procedures and information required are identified and sourced			
3.3 Resources required for servicing braking systems are identified and support equipment is identified and prepared			
<b>4. Carry out servicing of braking systems and/or associated components</b>			
4.1 Servicing is implemented in accordance with workplace procedures and manufacturer/component supplier specifications			
4.2 Adjustments made during the servicing are in accordance with manufacturer/component supplier specifications			
<b>5. Prepare equipment for use or storage</b>			
5.1 Servicing schedule documentation is completed			
5.2 Final inspection is made to ensure protective features are in place			

ELEMENTS /PERFORMANCE CRITERIA	Assessment methods/task See Assessment Guide below for description		
	KNOWLEDGE TEST	ASSESSMENT TASK	3rd PARTY
5.3 Final inspection is made to ensure work is to workplace expectations			
5.4 Equipment is cleaned for use or storage to workplace expectations			
5.5 Job card is processed in accordance with workplace procedures			
<b>UNDERPINNING KNOWLEDGE</b>			
<ul style="list-style-type: none"> <li>• OH&amp;S and environmental regulations/requirements, equipment, material and personal safety requirements</li> </ul>			
<ul style="list-style-type: none"> <li>• dangers of working with braking systems</li> </ul>			
<ul style="list-style-type: none"> <li>• operating principles of braking systems, components and their relationship to each other</li> </ul>			
<ul style="list-style-type: none"> <li>• types and layout of service/repair manuals (hard copy and electronic)</li> </ul>			
<ul style="list-style-type: none"> <li>• analysis procedures</li> </ul>			
<ul style="list-style-type: none"> <li>• servicing procedures</li> </ul>			
<ul style="list-style-type: none"> <li>• enterprise quality procedures</li> </ul>			
<ul style="list-style-type: none"> <li>• work organisation and planning processes</li> </ul>			
<b>Task skills (which assessment(s) or class activity will test that the candidate can demonstrate a single task?)</b>			
<b>Task management skills (which assessment(s) or class activity will test that the candidate can meet the performance criteria whilst completing other tasks)</b>			

ELEMENTS /PERFORMANCE CRITERIA	Assessment methods/task See Assessment Guide below for description		
	KNOWLEDGE TEST	ASSESSMENT TASK	3rd PARTY
<b>Job/role environment (which assessment(s) or class activity will test that the candidate can meet the performance criteria within their job)</b>			
<b>Contingency management skills (which assessment(s) or class activity will test that the candidate considers what might go wrong and takes action to prevent or correct)</b>			
<b>SPECIFIC EVIDENCE REQUIREMENTS / CRITICAL ASPECTS OF EVIDENCE</b>			
<b>It is essential that competence in this unit signifies ability to transfer competence to changing circumstances and to respond to unusual circumstances in the critical aspects of:</b>			
<ul style="list-style-type: none"> <li>observing safety procedures and requirements</li> </ul>			
<ul style="list-style-type: none"> <li>communicating effectively with others involved in or affected by the work</li> </ul>			
<ul style="list-style-type: none"> <li>selecting methods and techniques appropriate to the circumstances</li> </ul>			
<ul style="list-style-type: none"> <li>completing preparatory activity in a systematic manner</li> </ul>			
<ul style="list-style-type: none"> <li>conducting the inspection in accordance with workplace and manufacturer/component supplier requirements</li> </ul>			
<ul style="list-style-type: none"> <li>accurately interpreting wear analysis results</li> </ul>			
<ul style="list-style-type: none"> <li>completing service of braking systems in accordance with workplace and manufacturer/component supplier requirements</li> </ul>			
<ul style="list-style-type: none"> <li>completing service of braking systems and associated components within workplace timeframes</li> </ul>			

ELEMENTS /PERFORMANCE CRITERIA	<b>Assessment methods/task</b> See Assessment Guide below for description		
	KNOWLEDGE TEST	ASSESSMENT TASK	3rd PARTY
<ul style="list-style-type: none"> <li>equipment is presented to customer in compliance with workplace requirements</li> </ul>			



Appendix L-4: ASSESSMENT SUMMARY

**UNIT:**

Course: \_\_\_\_\_  
\_\_\_\_\_

Student:

	Mark/Grade	Date	Instructor signature
<b>Knowledge Test</b>			
<b>Practical Tasks</b>			
<b>Workplace Component</b>			
<b>Final Result Recorded For Unit</b>			

**Appendix N:**

**Manual on CBT**



# **Manual on CBT IMPLEMENTATION IN IRAN**

**Developed by the JICA Project Team**

## **Preface**

This Manual has been produced as part of the JICA Project for Strengthening Technical and Vocational Training Management Skills in Technical and Vocational Training Organization (TVTO).

It comprises 3 major processes and is intended to assist Iranian TVT personnel to set up and conduct Competency Based Training (CBT) courses.

All processes have been tested in the Iranian TVT context through the planning, delivery and evaluation of pilot courses involving the JICA Project Team (JPT) and Iranian counterpart staff from TVTO.

There would need to be significant structural changes in the Iranian TVT system for the implementation of all components of a CBT approach. Structural change is particularly important to enable much greater participation by industry both in the design and delivery of training, which is the crux of CBT.

JPT would like to thank all TVTO personnel who have contributed to the delivery of the pilot courses and the development of this Manual. In particular we would like to thank our TVT counterparts for their sincere and sustained efforts.

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# INTRODUCTION TO THE MANUAL

It has been necessary for all industrialized countries to reform their technical and vocational training (TVT) systems.

The key objective of this reform has been to provide training that is more specifically relevant to current and future jobs.

These reformed systems are required to enable entry-level employees to gain as much of the knowledge and skills (also called "competencies") to undertake required job functions when they first enter the workforce.

The reformed systems are also expected to provide ongoing upgrading for employees already in the workforce. Ongoing training is necessary because technology is changing so rapidly in all industry sectors.

In response to this need for TVT reform, a specific training approach called Competency Based Training (CBT) has evolved over a period of many decades.

Variations of the CBT approach are being used by a substantial number of countries to enable their technical & vocational education and training systems to be more relevant to industry needs.

In order to implement an effective CBT system, especially on a national level, the following processes need to be provided:

- ✓ Development of an appropriate framework through which industry competency standards can be prescribed for jobs across all industry sectors;
- ✓ Development of curriculum to support training delivery;
- ✓ Development of an effective framework for the monitoring and evaluation of all accredited training to ensure that all training achieves industry competency standards;
- ✓ Development of a national TVT qualifications system in which certification precisely signifies the job functions the certificate holder can perform;
- ✓ Provision of suitable training staff who have themselves achieved the prescribed industry competency standards and can deliver the training to industry standards;
- ✓ Conduct of trainer-training to induct TVT trainers into the process of delivering courses using a CBT approach and methodology; and,

- ✓ Provision of adequate facilities and equipment for providers or through developing cooperative partnerships with industry partners that have up-to-date facilities and equipment.

This Manual focuses on the following 3 major processes required to be undertaken in order to introduce a national CBT system in Iran:

- 1) Process for Defining Job-relevant Competency Standards;
- 2) Process for Developing Curriculum to Support CBT Delivery; and,
- 3) Process of Developing an Appropriate Monitoring & Evaluation Framework.

### **Process for Defining Job-relevant Competency Standards**

In relation to defining competency standards for all industry sectors in Iran, the recommendation of this manual is that a national framework be set up to customize the standards already developed in other countries such as Australia. (Two courses conducted by JPT in 2009 and 2010 have piloted the use of customized Australian competency standards in the Automotive sector for delivery of the courses.)

Commencing the process of defining job-specific standards from the beginning is likely to be a logistically complex, very time consuming and expensive task. It is recommended therefore to find a simpler and less expensive way to achieve this.

Job functions across all industrialized countries, especially in today's global market, are similar. A mechanic working in the Automotive service and repair sector in Australia, for example, would be required to undertake a very similar range of job functions as a mechanic in Iran or any other industrialized country. The situation would be very similar in most other industry sectors as well.

It makes good sense for the Iranian TVT system to use these standards as the basis for designing Iran-specific ones. The standards would need to be looked at by appropriate representatives from the relevant Iranian industry sectors and customized for use in this country. It is important to note that this process cannot be undertaken exclusively either by the organization responsible for training provision (currently TVTO) or by individual training providers (public and private TVTCs).

It is necessary for a centrally established, national organization or agency to coordinate the activity. Under the direction and coordination of this central organization, it is for bodies comprising industry and appropriate training personnel to be set up to study the Australian competency standards and undertake the customizing activity.

The Manual provides a step by step guide for this process.

### **Process for Developing Curriculum to Support CBT Delivery**

The provision of curriculum to support delivery of training to industry standards is central to the efficient delivery of CBT.

In countries like Australia, responsibility for the process of developing curriculum and suitable training resources varies. (It is important to note that all TVT providers across the country have equal access to nationally defined industry competency standards at all formal TVT certification levels).

In some states such as Victoria, the TVT system is decentralized, with each TVT provider accorded responsibility for management of all aspects of training provision. Responsibility for curriculum development in this system, therefore, is allocated to the individual training providers. For this to be feasible, publicly funded training-provider institutions have been amalgamated to form very large organizations with increased infrastructure and more substantial budgets for this kind of activity.

Private TVT providers are also expected to produce their own curriculum or purchase it from any one of a number of independent organizations that produce curriculum on a fee-for-service basis. (This kind of curriculum material is also available to public-funded TVT providers).

In other states in Australia, such as New South Wales, TVT is still centrally managed. The State Government has set up a framework for the production and dissemination of curriculum to the training providers under their management and supervision. Private providers are expected to produce their own training resources or purchase them from the public system or from independent organizations.

This Manual provides a step by step guide for the process of curriculum development. In the context of Iran TVT, it is important to note that the individual TVT providers (public and private TVTCs) are not likely, for the most part, to have the capability to develop curriculum to any significant extent. The process would therefore need to be initiated by an existing center such as the Curriculum Development Center (CDC) within TVTO, ITC or by setting up a new center with curriculum development as its specific role.

This manual will be useful as a guide to curriculum development for the staff working in the CDC with the responsibility for producing the new CBT curriculum. It will be also useful for staff in TVTCs who may be allocated a curriculum development role in



some of the larger TVTCs.

As in the case of the foreign industry competency standards, it would be very useful for the delegated curriculum development staff to access curriculum that has been produced by countries such as Australia and adapt and customize them for use in TVT in Iran. (This was the approach adopted in the development and delivery of the 2 Pilot Courses conducted as part of the JICA Project).

### **Process of Developing an Appropriate Monitoring & Evaluation Framework**

A key feature of a CBT system is the capability to provide continuous improvement. CBT systems are outcome oriented, thus the key outcome that is intended to be achieved in the design and delivery of every course is that trainees will achieve competence to industry standards on completion of the course.

Provision of continuous improvement can only be ensured by monitoring all stages of the training delivery process in order to ensure that trainees have been able to achieve the competence prescribed in the industry competency standards.

TVT course evaluation should be concerned about making judgments on its quality and suitability, and should focus on a whole course or particular aspects such as course design, teaching and learning, skills assessment, delivery and outcomes.

Each course must outline the processes in place for its ongoing monitoring and evaluation, throughout the period for which it is conducted. It is also necessary to show ongoing monitoring and review when reaccrediting a course. There should be an expectation that this process is followed for the accreditation of every course.

The following should be the broad scope for course evaluation:

- ✓ The purpose of the evaluation;
- ✓ Timing of the evaluation;
- ✓ Type and scope of the data to be gathered;
- ✓ Description of the main stakeholders; and,
- ✓ Reporting requirements and format.

This Manual outlines the basic steps required to provide a CBT course monitoring and evaluation framework together with a collection of forms and templates that can be used for this process.

In countries like Australia, responsibility for the process of monitoring & evaluation of courses is mainly with the training providers. In addition, there is overall auditing of all training provision by governing bodies. In Victoria, for example, the governing body is Skills Victoria. This body is responsible for overall auditing of all training functions of both private and public TVT providers. Auditing is carried out in accordance with the Australian Quality Training Framework which incorporates national guidelines for TVT provision.

In view of TVTO's current situation, the overall monitoring & evaluation process can perhaps be organized by an existing department such as the Provincial Office or with designates departments within TVTCs.

It is important to note, however, that all staff that is delegated M&E functions needs to be inducted into the concepts, approach and methodology of CBT provision. Moreover, all M&E data would need to be incorporated into a database by an appropriate center within TVTO such as the Training Department or CDC so that information can be regularly checked and used for continuous improvement.

**NOTE:**

To provide a comprehensive understanding of CBT and its implementation, it will also be necessary to conduct CBT induction workshops for all key stakeholders involved in developing and implementing a CBT system. The course schedule, objectives, together with a course manual for a course delivered to TVTO staff in 2009 and 2010 are provided with this Manual.



# **PART 1: PROCESS FOR DEFINING JOB-RELEVANT COMPETENCY STANDARDS**



# EXPLANATORY NOTE

## DEFINITION OF COMPETENCY STANDARDS

A key process in the CBT approach is developing job-relevant Competency Standards.

Competency Standards provide the basis for all TVT courses and qualifications. They are also the means for common recognition and acceptance of knowledge and skills and qualifications across a country.

The central notion is that the competency standards are defined by industry through the creation of appropriate industry bodies. These bodies work in close collaboration with training management agencies and providers, but are the primary source of the competency standards.

Training organizations, which need to be formally registered to be able to deliver nationally accredited qualifications, are responsible for the **delivery** of training in conformance with the requirements of the prescribed industry competency standards.

A competency standard is a nationally agreed statement of skills and knowledge required for effective performance in a particular job or job function. Someone who is competent can demonstrate that they have the required skills and knowledge and be able to apply to the standards of performance required in the workplace.

It is generally accepted that when training standards are defined by industry, the training is far more likely to prepare people both for entry into the workforce, and for continuing training (including re-training) to meet changing needs. These needs vary, but are often caused by constant changes in technology.

There are 3 main classifications of standards:

<b>Industry standards</b>	Industry standards that are national competency standards endorsed for a specific Industry.
<b>Cross-Industry standards</b>	Cross-industry standards are based on competencies that are common to a range of industries.

**Enterprise standards**

Enterprise standards consist of the competency standards developed and/or used specifically at enterprise level. (For example, large food chains, department stores, supermarkets and manufacturing plants have developed competency standards for their particular needs).

In Australia, Competency Standards are organized into what are called Units of Competence (UOCs) in each industry sector. They are categorized into courses which are in turn classified into hierarchically arranged certification/qualification levels.

Figure 1-1 below shows the relationship between job roles and certification in the Automotive service and repair sector. Each Certificate level is comprised of Units of Competence.

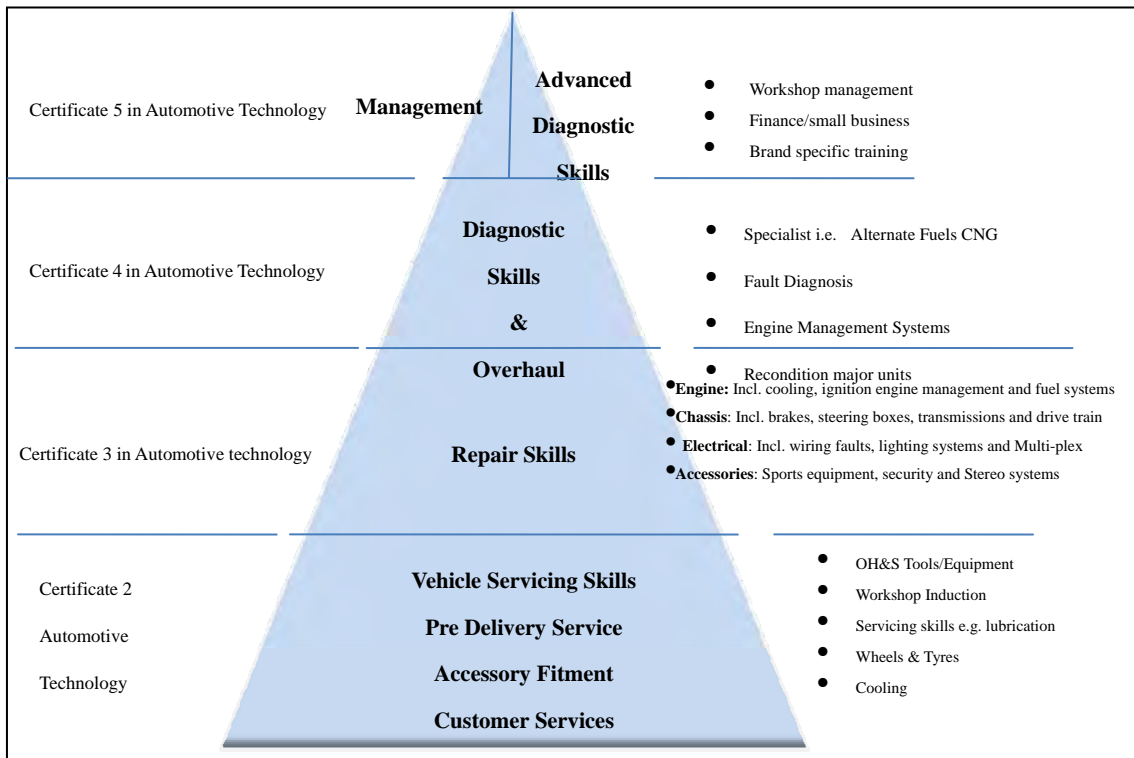


Figure 1-1: Training Model for Auto-Mechanic Industry

# **FAST TRACK STRATEGY TO DEFINE COMPETENCY STANDARDS FOR TVT in IRAN**

The general process of developing competency standards comprises 5 steps as follows.

Step 1: Research

Step 2: Analysis

Step 3: Development

Step 4: Validation

Step 5: Evaluation

Conducting all five steps to determine competency standards across all industry sectors from the beginning is likely to be very expensive and costly. Conversely, adopting a fast track strategy by adopting existing competency standards from another country and adapting and customizing them to more specifically suit the Iranian context, can be logistically simpler and far more cost effective.

One of the advantages of adapting industry competency standards from another country is that in Australia, for example, other components relating to TVT delivery such as training resources and assessment tools can be accessed from current training institutes. This will significantly help in saving budgets and time for organizations such as TVT). Iranian TVT delivery organizations can use exiting curriculum material from these organizations and customize then to meet Iranian industrial needs. Importantly, a substantial amount of relevant information can be readily accessed through the internet.

Admittedly there could be some difficulties encountered in adopting this fast track strategy. One issue is that there may be some industries and jobs in Iran for which there are no competency standards developed. Some cottage industries in Iran, for example, may require competency standards that have not yet been developed. For these training areas, TVT in Iran could use the approach and format of the Australian standards to write standards that are specific to Iranian jobs.

## **Examples of the Use of a Fast Track Approach in Other Countries**

Many countries have introduced a CBT system by using models and strategies used in other countries.



Generally countries that have adopted a CBT approach to TVT have done so utilizing the intellectual assets and approaches being implemented in other countries. The following is a brief outline of some of the developments in this regard:

- ✓ Ireland has a 5-level national framework for vocational qualifications – designed to keep in step with the European 5-level framework, thereby enabling greater transferability of skills in the EU. National Council for Vocational Awards is responsible for developing certification and accreditation. Ireland adopts a modular format – each module being a unit of training which can be assessed independently and makes up the qualification together with other relevant units;
- ✓ In the 1980s South Korea translated the performance-based teacher education modules from U.S Ohio State University into Korean and explored their usefulness within their education system;
- ✓ The Department of Vocational Education (DOVE) in Thailand began investigating the usefulness of CBT in the 1980s. They sent senior DOVE staff to South Australia for professional development. They began development of CBT modules to be used in their Technical College system. A Vocational Education Act was passed in 2001 establishing CBT as the preferred approach to VET training in the Thai Technical Colleges;
- ✓ Since the early 1990s, the Philippines have introduced CBT using the Australian CBT system as their model. All their technical colleges have adopted a CBT approach to curriculum development and training implementation under the auspices of a specially constituted central Government body called the Philippines Education & Skills development Authority (TESDA). The Philippines have also set up a national qualifications framework;
- ✓ Indonesia began to move toward the CBT approach in the mid 1990s and have chosen to use models already established in Australia. Major AusAID VET projects have assisted with the development of a national qualifications framework and adoption of a CBT approach to TVT; and,
- ✓ In New Zealand the NZ Education Amendment Act of 1990 established a comprehensive framework for national TVT qualifications covering school and post-school education and training. The CBT system used there is very similar to the Australian one.

# USING THE AUSTRALIAN CBT SYSTEM AS A MODEL FOR TVT REFORM IN IRAN

As mentioned above, a number of countries have adopted a CBT approach to conducting TVT. This Manual has selected the Australian approach as a model.

The Australian CBT system has been developed over a period of over twenty years and has proved very successful in producing trainees that are well trained for entry into all sectors of the workforce. It has also enabled many employees to undertake further training in specific skills areas as required by their occupations.

The Australian system is considered as one of the most successful CBT systems. However, it is recommended that Iranian TVT authorities study the CBT systems of a number of other countries in order to select the features that are of particular relevance and convenience for the Iranian context.

## **Development of Australian Competency Standards**

In Australia the competency standards for all industry sectors are incorporated in a comprehensive set of documents called *Training Packages*.

A Training Package is a set of endorsed competency standards, assessment guidelines and Australian Qualifications Framework qualifications for recognizing and assessing people's skills in a specific industry, industry sector or enterprise. Training Packages describe the skills and knowledge that individuals need to perform effectively in the workplace. A Training Package does not describe how an individual should be trained. Trainers and assessors develop appropriate learning strategies, resources and materials—the 'how'—depending on the learners' needs, abilities and circumstances to meet the needs of the Training Package.

The Training Packages in the Australian TVT system were developed by specially constituted Industry Training Advisory Bodies (ITABs) under the auspices of a central (Federal) Government Authority called the Australian National Training Association. The Training Packages are maintained and amended by newly established bodies called National Skills Councils (NSCs) under the auspices of the National Quality Training Council. (The ITABs and NSCs have substantial representation by personnel from

each relevant industry sector)

Australian Training Packages cover occupational training needs in all industries in the country. Each industry has their own Training Package to suit all occupational training needs in that industry. 31 Training Packages were developed to cover an extensive range of industry sectors.

Importantly, each Training Package is also divided into several certificates that are classified by occupational skill levels and areas, and varying levels of complexity.

Each certificate level comprises several units of competency which are divided into core (compulsory) and elective units. Training providers that choose to implement a course at a particular certificate level have to deliver all core units and have to carefully select elective units of competency from a range of units of competency called inventories according to prescribed selection criteria and local industrial training needs.

A Training Package is comprised of many Units of Competence (UOCs) which cover all skills and knowledge required to effectively perform all occupations in those industries. These Units of Competence are also referred to as Competency Standards and are written using especially prescribed heading and sub-headings which contain all information that is necessary for training providers to develop appropriate curriculum and training methods.

The units of competency are classified into *inventories*, *clusters* and *groups*.

### **Sample Training Package (Automotive Training Package)**

In this Manual a sample training package in the Automotive Service and Repair sector will be used as a sample.

The overall structure of the Automotive Industrial Training Package for Retail, Service and Repair is illustrated in Figure 1.2.

This Training Package has 32 certificates from Certificate 1 to Certificate 5 (Diploma) classified by training areas and levels, as shown in Table 1-1.

There are 10 inventories in the Automotive Industrial Training Package for Retail, Service and Repair, as shown in Table 1-2. Each inventory consists of several clusters. For example, the Technical Inventory has 14 clusters, as shown in Table 1-3. Each of these clusters consists of several groups, for example, Electrical Ancillary Systems and Accessories Cluster has 4 groups and 21 units of competency, as shown in Table 1-4.

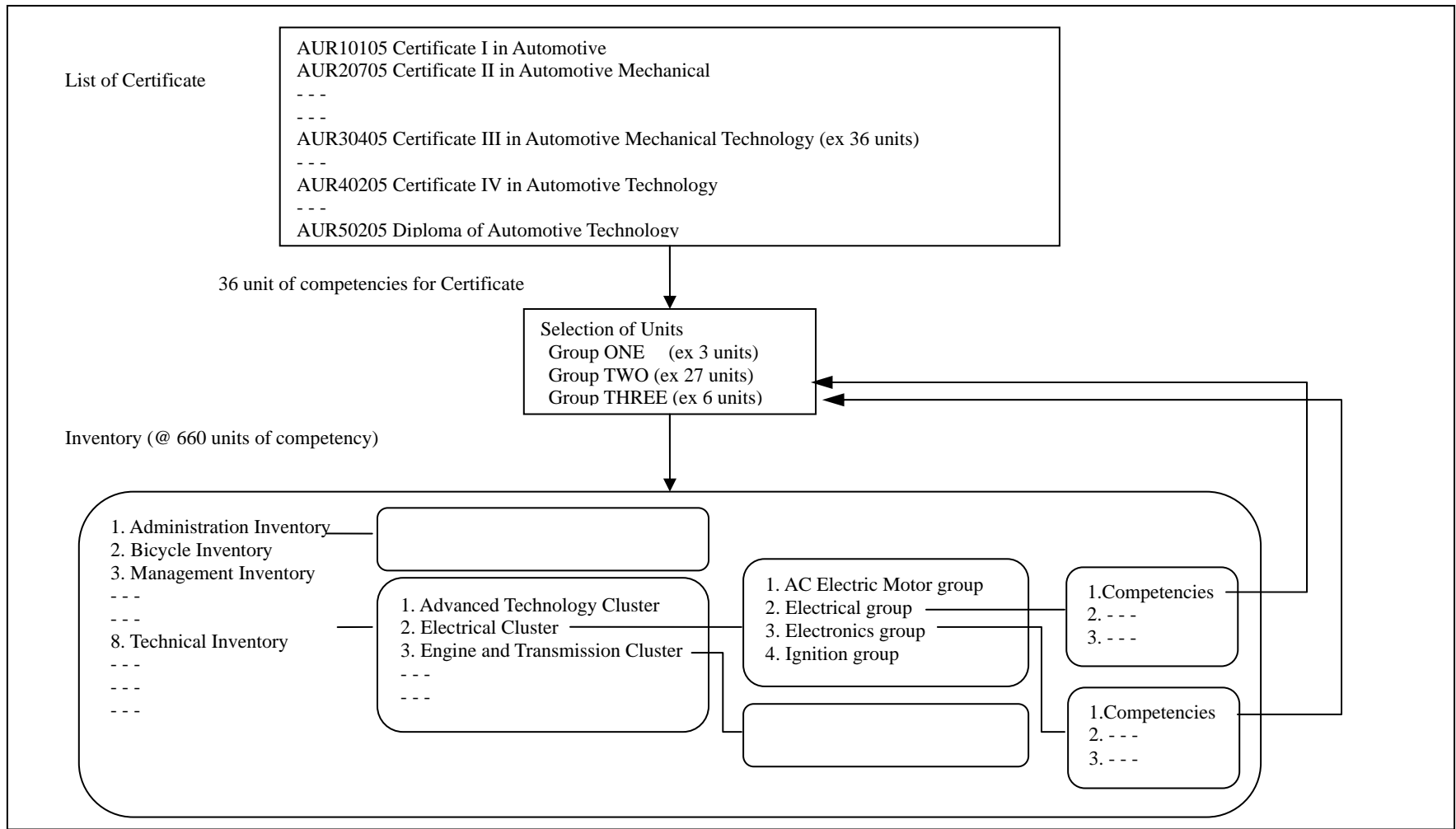


Figure 1-2: Overall Structure of Automotive Industrial Training Package for Retail, Service and Repair

Table 1-1: List of 32 Certificates in Automotive Industrial Training Package for Retail, Service and Repair<sup>1</sup>

Code	Title
AUR10105	Certificate I in Automotive
AUR20105	Certificate II in Automotive Administration
AUR20205	Certificate II in Automotive Aftermarket Manufacturing
AUR20305	Certificate II in Bicycles
AUR20405	Certificate II in Automotive Electrical Technology
AUR20505	Certificate II in Automotive Vehicle Servicing
AUR20605	Certificate II in Marine
AUR20705	Certificate II in Automotive Mechanical
AUR20805	Certificate II in Outdoor Power Equipment
AUR20905	Certificate II in Automotive Vehicle Body
AUR21005	Certificate II in Motor sport
AUR21105	Certificate II in Automotive Sales
AUR21205	Certificate II in Automotive Warehousing/Distribution Operations
AUR30105	Certificate III in Automotive Administration
AUR30205	Certificate III in Bicycles
AUR30305	Certificate III in Automotive Electrical Technology
AUR30405	Certificate III in Automotive Mechanical Technology
AUR30505	Certificate III in Marine
AUR30605	Certificate III in Automotive Specialist
AUR30705	Certificate III in Outdoor Power Equipment
AUR30805	Certificate III in Automotive Vehicle Body
AUR30905	Certificate III in Motor sport
AUR31005	Certificate III in Automotive Sales
AUR31105	Certificate III in Automotive Warehousing/Distribution Operations
AUR31205	Certificate III in Automotive Retail, Service and Repair
AUR40105	Certificate IV in Automotive Management
AUR40205	Certificate IV in Automotive Technology
AUR40305	Certificate IV in Motor sport
AUR40405	Certificate IV in Automotive Performance Enhancement
AUR50105	Diploma of Automotive Management
AUR50205	Diploma of Automotive Technology
AUR50305	Diploma of Motor sport

<sup>1</sup> Refer to Page 4 in the PDF file of AUR05\_1

Table 1-2: List of 10 Inventories in Automotive Industrial Training Package for Retail, Service and Repair<sup>2</sup>

1	Certificate I Inventory
2	Administration Inventory
3	Aftermarket Manufacturing Inventory
4	Bicycle Inventory
5	Management Inventory
6	Motorsport Inventory
7	Sales Inventory
8	Technical Inventory
9	Vehicle Body Inventory
10	Warehousing/Distribution Inventory

Table 1-3: List of 14 Clusters in Technical Inventory<sup>3</sup>

1	Advanced Technology Cluster
2	Brakes Cluster
3	Electrical Ancillary Systems and Accessories Cluster
4	Engines / Systems and Transmissions Cluster
5	Environmental Cluster
6	General Mechanical Cluster
7	Management and Administration ADMINISTRATION Cluster
8	Marine Cluster
9	Outdoor Power Equipment Cluster
10	Sales, Warehousing, Purchasing and Storage Cluster
11	Steering and Suspension Cluster
12	Trailers Cluster
13	Tyres and Wheels Cluster
14	Vehicle Body Cluster

<sup>2</sup> Refer to Page 86 in the PDF file of AUR05\_1

<sup>3</sup> Refer to Page 180 in the PDF file of AUR05\_1

Table 1-4: List of 4 Groups and 21 Units of Competence in Electrical Ancillary Systems and Accessories Cluster<sup>4</sup>

<b>AC Electric Motor Drive Systems group</b>		
1	AURE319271A	Inspect, service and repair AC electric motor drive systems
<b>Electrical group</b>		
2	AURE218664A	Remove and replace electrical/electronic units/assemblies
3	AURE218670A	Service, maintain or replace batteries
4	AURE218676A	Test, service and charge batteries
5	AURE218708A	Carry out repairs to single electrical circuits
6	AURE218764A	Remove, refit and test electrical componentry for normal operation following body repair activities
7	AURE219331A	Install, test and repair low voltage wiring/lighting systems
8	AURE219431A	Install, test and repair electrical security systems/components
9	AURE219531A	Install ancillary electrical components
10	AURE220140A	Manufacture and repair wiring harness/looms
11	AURE224008A	Carry out soldering of electrical wiring/circuits
12	AURE318866A	Repair electrical systems
13	AURE318966A	Repair instruments and warning systems
14	AURE319145A	Overhaul charging system alternators
15	AURE319166A	Repair charging systems
16	AURE319245A	Overhaul starting motors
17	AURE319266A	Repair starting systems
18	AURE320031A	Install marine electrical systems/components
19	AURE320066A	Diagnose and repair marine electrical systems/components
<b>Ignition group</b>		
20	AURE320666A	Repair ignition systems
<b>Electronics group</b>		
21	AURE321171A	Service and repair electronic spark ignition engine management systems

### **Further Note on the Codes in Training Packages**

As indicated in the above table, many codes in the Training Package contains several codes. The following indicates the significance of the codes:

#### **Training Package Codes**

Each Training Package has a unique five-character national code assigned when the Training Package is endorsed. The Automotive Retail, Service and Repair sector Training package, for example, is denoted by the code AUR05. The first three characters are letters identifying the Training Package industry coverage, and the last two characters are numbers identifying the year of endorsement.

<sup>4</sup> Refer to Page 182 in the PDF file of AUR05\_1

### Qualification Codes

Within each Training Package, each qualification has a unique eight-character code, for example AUR20505. The first three letters identify the Training Package; the first number identifies the qualification level (noting that Arabic numbers are not used in qualification titles themselves); the next two numbers identify the position in the sequence of the qualification at that level; and the last two numbers identify the year in which the qualification was endorsed. (Where qualifications are added after the initial Training Package endorsement, the last two numbers may differ from other Training Package qualifications as they identify the year in which those particular qualifications were endorsed.)

### Unit of Competence Codes

Within each Training Package, each unit of competence has a unique code. The units of competence codes are assigned when the Training Package is endorsed, or when new units of competence are added to an existing endorsed Training Package.

A typical code is made up of 12 characters, normally a mixture of uppercase letters and numbers, as in AURT217108A. The first three characters signify the Training Package (AUR05 Automotive Training Package – Retail, Service and Repair Sector in the above example) and up to eight characters, relating to an industry sector, function or skill area, follow. The last character is always a letter and identifies the unit of competence version. The 'A' in the example above indicates that this is the original unit of competence.

An incremented version identifier usually means that minor changes have been made. Typically this would mean that wording has changed in the range statement or evidence guide, providing clearer intent. Where changes are made that alter the outcome, a new code is assigned and the title is changed.

### Unit of Competence Titles

Each unit of competence title is unique. A Unit of Competence titles describe the competency outcome concisely, and are written in sentence case.

For example:

AURT217108A Carry out wheel alignment operations

AURT301357A Rebuild engine components.



### Qualification Titles

The title of each endorsed Training Package qualification is unique. Qualification titles use the following sequence:

The qualification is identified as either Certificate I, Certificate II, Certificate III, Certificate IV, Diploma or Advanced Diploma.

This is followed by the words 'in' for Certificates I to IV and 'of' for Diploma and Advanced Diploma;

The industry descriptor follows.

For example:

AUR20505 - Certificate II in Automotive Vehicle Servicing

AUR30405 - Certificate III in Automotive Mechanical Technology

AUR40205 - Certificate IV in Automotive Technology

AUR50205 - Diploma of Automotive Technology.

# BREAKDOWN OF TRAINING PACKAGES

The Unit of Competence is a key component of each Training Package. The Unit of Competence can also be defined as the "competency standard", and describes WHAT trainees have to achieve to become job-ready. The Units of Competence are in turn divided into elements of competence, together with performance criteria, providing a substantial amount of further information relevant to achieving the prescribed standards. This information is supplied to enable training providers to develop curriculum that can be used to effectively train people to achieve competence.

Figure 1-3 below illustrates the breakdown of Training Packages.

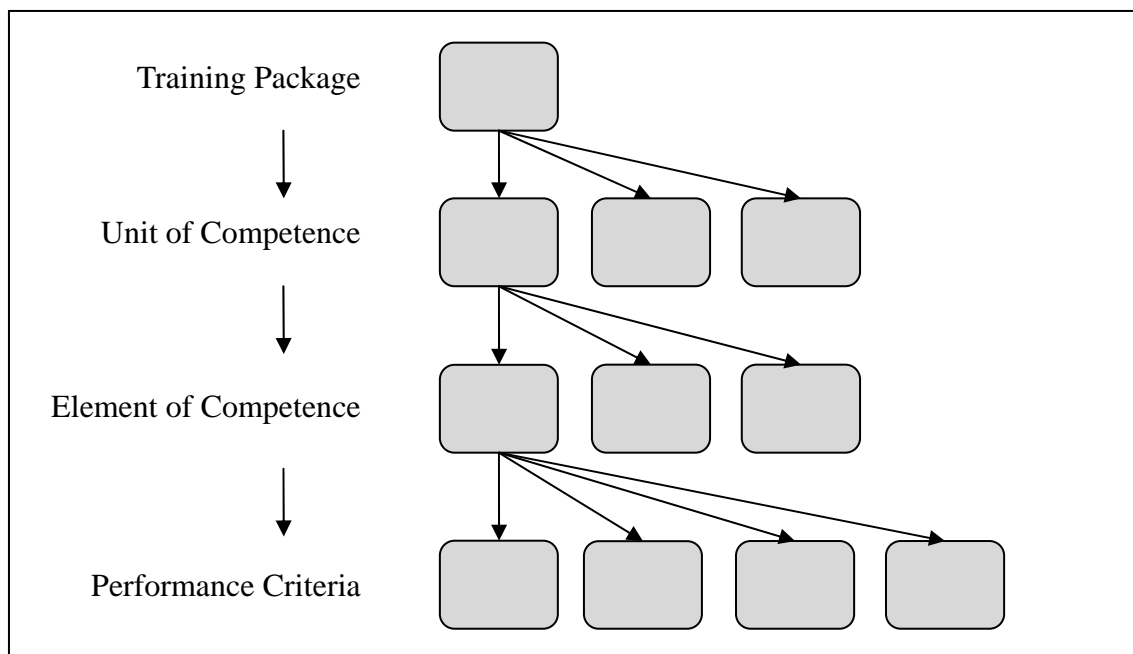


Figure 1-3: Breakdown of Training Packages

## [Case Study]

The Unit of Competence for Repair Ignition Systems: AURE320666A is shown in Table 1-5, as a sample.

Table 1-5: A Sample of Unit of Competence for "Repair Ignition System"

<b>UNIT DESCRIPTOR</b>
<b>ELEMENT AND PERFORMANCE CRITERIA</b>
1. Prepare for work
2. Test ignition systems/components and identify faults
3. Repair ignition systems/components
4. Clean up work area and maintain equipment
<b>RANGE STATEMENT</b>
Unit scope
Unit context
Safety (OH&S)
Environmental requirements
Quality requirements
Statutory/regulatory authorities
Tooling and equipment
Materials
Communications
Information
<b>EVIDENCE GUIDE</b>
Critical aspects of evidence
Relationship to other units
Underpinning knowledge
Specific key competencies, underpinning and employability skills required to achieve the performance criteria
Collect, analyze and organize information
Communicate ideas and information
Plan and organize activities
Work with others and in a team
Use mathematical ideas and techniques
Solve problems
Use technology
Context of assessment
Method of assessment
Specific resource requirements for this unit

# PROCESS STEPS

## OVERVIEW

Competency standards provide the basis for all TVT courses and qualifications. They are also the means for common recognition and acceptance of knowledge and skills and qualifications across the country.

In a CBT approach, competency standards are defined by industry through the creation of industry representative bodies for each industry sector. These bodies generally consist of representatives from each industry sector and professional training personnel.

A competency standard is a nationally agreed statement of skills and knowledge required for effective performance in a particular job or job function. Someone who is competent can demonstrate that they have the required skills and knowledge and be able to apply to the standards of performance required in the workplace.

It takes a substantial effort and budget to set up industry representative bodies to define current occupational standards across all industry sectors. The recommendation in this manual, therefore, is to use the Australian competency standards as the basis for developing current competency standards for Iran TVT.

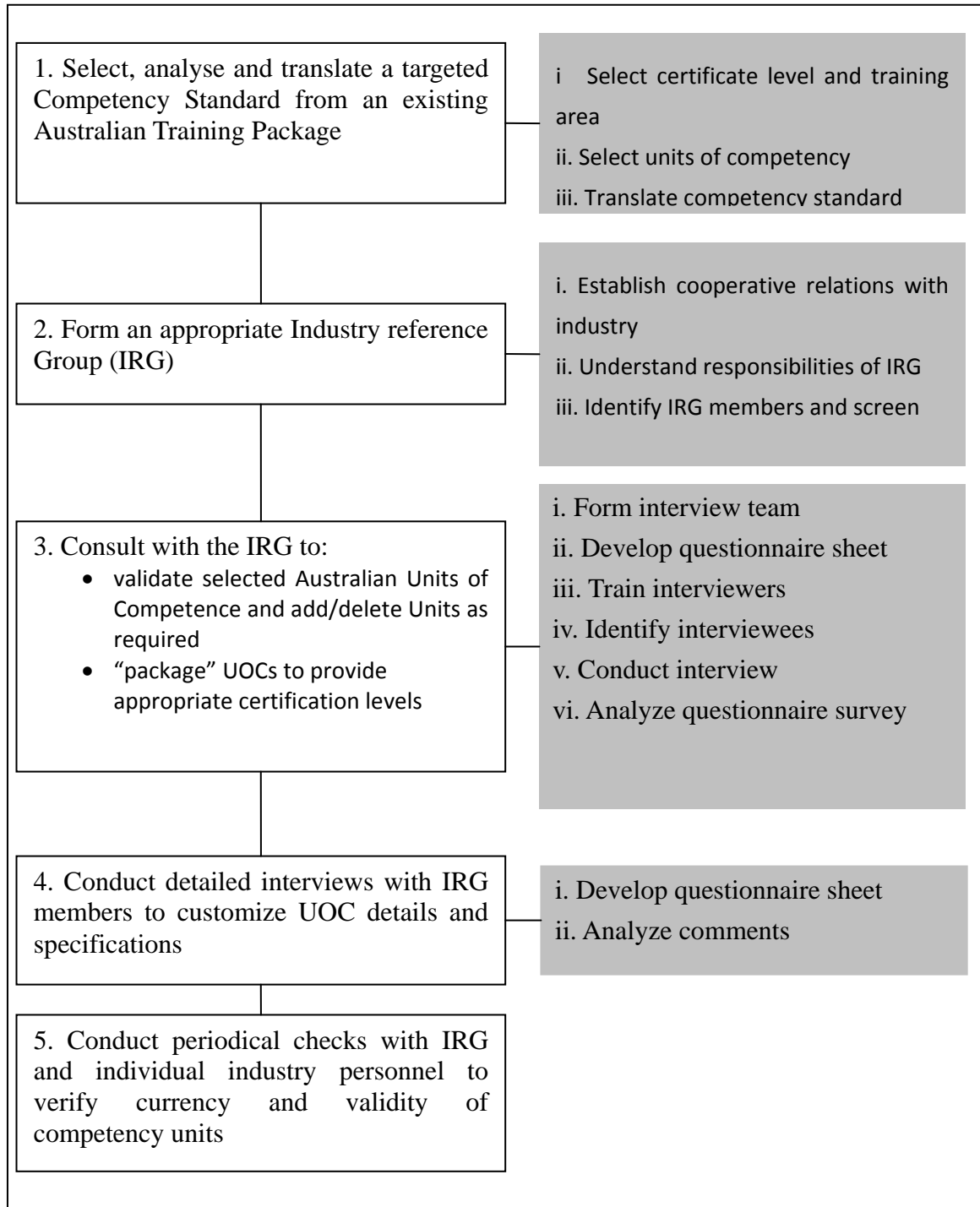
The Australian standards have been developed over many years through the systematic creation of industry representative groups called Industry Skills Councils. Most technical and vocational training sectors in Australia closely resemble related sectors in Iran. For example, a mechanic working in an automotive workshop in Tehran would undertake similar job functions at all levels to a mechanic working in a workshop in Australia. Thus competency standards framed in Australia would be generally applicable in Iran. Where there may be differences, the Australian standards can be modified and customized to specifically suit the Iranian context.

In this Manual, therefore, the primary recommendation is to use Australian competency standards (systematically defined in what are called "Training Packages") as a basis for developing relevant competency standards for Iran.

This section of the manual provides a logical flowchart of the process required to

customize Australian Competency Standards using the Automotive Repair and Service industry sector as the model.

## LOGICAL FLOW CHART OF PROCESS STEPS



## EXPLANATION OF PROCESS STEPS

**STEP1** Select, analyze and translate a targeted Competency Standard from an existing Australian Training Package

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**Sub STEP1.i** Select Certificate Level and Training Area

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Before the interview process can commence, it is important to precisely define the level of training that is needed to be confirmed by the industry representatives who are being consulted and, just as importantly, the capacity of the training organization to provide this level of training.

Referring to the Australian Training Package, the certificate levels and training area have to be decided first, for example, the Electrical area of auto mechanics at Certificate 3 level.

See  
*Appendix 1-1 Background of Certificate in Australian Training Package*

**Sub STEP1.ii** Select Units of Competence from Inventories

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After choosing appropriate Certificates levels from the Australian Training Packages, it is necessary to select the required units of competency that are prescribed for these levels. The selection is made by identifying all related units of competency from

See  
*Appendix 1-2 A Sample of Selection of Units of Competence*

relevant inventories. The selected units of competence will be the ones used for the planned training course.

<b>Sub STEP1.iii</b>	<b>Translate the competency standard imported from Australian Training Package</b>
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Since many of the key personnel in industry are not likely to be able to understand a foreign language, it is imperative that the foreign industry competency standards are translated before they can be customized to suit the local context. Note the importance of translation, as mistranslation provides a lot of trouble in Step 3 and 4.

<b>STEP2</b>	<b>Form an appropriate Industry reference Group (IRG)</b>
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<b>Sub STEP2.i</b>	<b>Establishment of Cooperative Relations with Industry</b>
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Because it is imperative that competency standards are defined with substantial input from industry, it is essential for TVTO to establish a cooperative relation with industry.

In this regard, TVTO has to convince industry that a CBT system needs to be introduced. The consequence of introducing such a system would be that industry would benefit substantially by trainees being trained to standards that they themselves have defined.

The following steps will assist TVTO establish cooperative relations with industry:

1. Invite representatives of leading companies to a workshop, explain TVTO's policy to reform training courses by using the CBT system and make industry understand their benefit;
2. Visit leading companies, explain to management what was discussed at the workshop and obtain cooperation agreement;
3. Visit leading companies to explain managers and staff in charge of human resource development on how to conduct interviews and make arrangement for interviews to appropriate personnel;
4. Ask leading companies to use their networks to arrange interviews with representatives from medium to small-range companies;
5. Report results of interviews to all participating companies;
6. Produce a database of personnel that have been useful in interviews so that they can be contacted again for further cooperation. The database should include information such as the interviewee's name, company, department, position,

contact number, level of experience and knowledge evaluated by interviewer and so on;

7. Form industrial reference group to confirm the full range of competency; and, standards required for job training and periodically review competency standards. The industrial reference group members should be selected from the database.

In order to maintain a good relationship with industry, practical lessons learnt through the project can be summarized as follows:

- ✓ In order to arrange a meeting, send a request letter to the company at least 4 days before the proposed meeting date. The letter should include objectives, agenda, suggestions about appropriate personnel from the industry to participate in the meeting/interview and the names and positions of the visitors from TVTO;
- ✓ Be punctual for meeting;
- ✓ Wear appropriate clothes when visiting the company;
- ✓ Do not underestimate the time required for the meeting; and,
- ✓ Avoid lunch time. The best times to commence meetings are 9:00 am and 2:00 pm.

<b>Sub STEP2.ii</b>	<b>Understand Responsibilities of IRG</b>
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In the CBT system, designated Industry Reference Group (IRG) in each industry sector develops the competency standards into Training Packages. The IRG are also responsible for developing appropriate assessment guidelines and qualifications (hierarchical course structures) that correspond with the competency standards. The IRG in each industry sector are made up of experienced industry personnel and are responsible, together with TVTO, for the maintenance of the Training packages in their sector. The IRG is mainly responsible to define 1) Units of Competence (Competency standards), 2) Assessment Guidelines and 3) Qualifications as follows.

**Units of Competence** Each unit of competence identifies a discrete workplace requirement and includes the knowledge and skills that underpin competency as well as language, literacy and numeracy; and occupational health and safety requirements. The units of competence must be adhered to in training and assessment to ensure consistency of outcomes.



**Assessment Guidelines** The Assessment Guidelines provide an industry framework to ensure all assessments meet industry needs and nationally agreed standards as expressed in the Training Package and the Standards for Registered Training Organizations. The Assessment Guidelines must be followed to ensure the integrity of assessment leading to nationally recognized qualifications.

**Qualifications** Each Training Package provides details of those units of competence that must be achieved to award AQF qualifications. The rules around which units of competence can be combined to make up a valid AQF qualification in the Training Package are referred to as the 'packaging rules'. The packaging rules must be followed to ensure the integrity of nationally recognized qualifications issued.

<b>Sub STEP2.iii</b>	<b>Identify IRG members and Screening</b>
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In order to make the process for defining the competency standards for the target training courses intensive and systematic, Industry Reference Group (IRG) has to be formed with a role of prioritization and customization of units of competency chosen from Australian training package. IRG should have a good mix in terms of company groups and company sizes. All of them have technical background and a sufficient level of work experiences in the respective industrial sector.

In order to have common understandings among TVTO and IRG members, TVTO should organize meetings with IRG members in the early stage of the process. The meetings should focus on 1) understandings of the CBT concept and the Australian CBT structure, 2) appropriate target level for the target training courses, 3) selection of appropriate competency units from Australian Training Package for the target training courses.

**STEP3 Consult with IRG to:1) validate selected Australian Units of Competence and add/delete Units as required, and 2)"package" UOCs to provide appropriate certification levels**

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**Sub STEP3.i Form Interview Team**

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It is recommended that an interview team be formed in the following way:

- ✓ The team needs to be a mix of representatives of TVTO, provincial offices and TVTCs;
- ✓ The majority of the team should be instructors with at least 3 years experiences as an instructor in the target training area;
- ✓ These instructors should have a sufficient level of English proficiency, since all original documents of Australian Training Package are written in English;
- ✓ All members should have a full understanding of Australian CBT system; and,
- ✓ Since very technical matters are discussed during the interview, the team members need to participate in the full range of interviews. It is necessary, therefore, for team members be released from their normal duties so that they can complete the series of meetings and interviews with the designated industry personnel.

**Sub STEP3.ii Develop Questionnaire Sheet**

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After selecting candidates of Units of Competence, the questionnaire sheet and brief description of each Unit of Competence have to be prepared. The Questionnaire sheet should include unit code, unit title, estimated training hours, evaluation marks from 5 to 0. The brief description can be Unit Descriptor in Australian Training Package. The results of the questionnaire survey are analyzed in a qualitative way to prioritize selected units of competency.

See

*Appendix 1-3 A Sample of Questionnaire Sheet*

### **Sub STEP3.iii Train Interviewers**

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Since it is meaningless to fill out questionnaires without adequate explanation of all material relating to the selection and prioritization of Units of Competence (competency standards), mailing of questionnaire sheets is not an appropriate way to effectively elicit information. To be productive, interviews must be conducted face-to-face.

To enable all interviewers to participate effectively, a one-day workshop should be held before conducting the series of interviews. The workshop should have the following agenda:

- ✓ Explanation of the objective, approach, Australian Training Package, industrial structure of the organization participating in the interviews, the range and implications of the question and the rating and interview method;
- ✓ Explanation of the target training course such as the area of specialization, the target trainees and the intended training period;
- ✓ Conduct of a role play to confirm the interviewers' understanding, of the questions related to each unit of competency; and,
- ✓ Confirmation of the implementation schedule and grouping of interview visits.

Before commencement of the interview, it is recommended that a trial interview be conducted involving all team members to confirm and validate the questionnaire sheets and interview methods so that all interviewers share a common understanding and are equally prepared for the task.

### **Sub STEP3.iv Identify Appropriate Interviewees**

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One of the most important factors is to identify appropriate interviewees. Interviewees have to be experienced personnel with technical backgrounds. These backgrounds could include roles as technical expert and supervision. IRG members are the appropriate candidates of interviewees and they may introduce other appropriate

interviewees.

Personnel with these backgrounds are usually sourced in large and medium scale companies. However, it is not easy to find appropriate experts in small companies. In order to collect reliable information and opinions, it might be wise that interviews should focus on large and medium scale companies. Personnel database will help the interview team find appropriate and reliable personnel.

In order to maintain the quality of interviews, it is practical to set the target number of interviewees at around 15, rather than selecting and contacting large numbers of interviewers. Trying to interview large numbers will inevitably lead to low quality interviews and subsequent inadequate and unusable results.

<b>Sub STEP3.v</b>	<b>Conduct Interviews</b>
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The following are suggestions for conducting effective interviews:

- ✓ Interview face-to-face;
- ✓ Include at least one person with a sufficient level of experience in interviewing in each team;
- ✓ Try to keep the time for each to around hours;
- ✓ Carefully brief the interviewee about the objective and evaluation method before starting interview;
- ✓ Explain the meaning of employability skills, since this is not a commonly used term;
- ✓ Advise the interviewees to make a fair distribution of rating among the given units of competency;
- ✓ Ask the interview to write reasons for their rating of Units;
- ✓ Ask the interviewee to write reasons especially if they accord a score of "6" for a Unit;
- ✓ Review all questionnaire sheets after the interview, check missing data and ask for more information if the rating has been very different from predictions;
- ✓ Ask the interviewee to write clearly and legibly; and,
- ✓ Always act in a professional manner.

### **Sub STEP3.vi    Make Quantitative Analysis to Select Units of Competence**

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All data has to be carefully entered in fixed format. Data should include interviewee, company name, company size and rating. Distribution of rating on each Unit of Competence has to be counted for analysis.

There are a number of analysis methods. The followings are the typical steps to analyze priority of units of competency:

Step1: Comparison of overall average rating on units of competency

Step2: Ranking of overall average rating on units of competency in descending order with rating distribution

Step3: Rader chart to compare difference of priority on units of competency by company groups

Step4: Rader chart to compare difference of priority on units of competency by company sizes

Step5: Identification of reasons for discrepancy of priority on units of competency among company groups, company sizes and individuals through individual follow-up interviews

See

*Appendix 1-4    A Sample of Analysis to Select Units of Competence*

## **STEP4**

**Conduct detailed interview with IRG members to customize UOC details and specifications**

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**Sub STEP4.i****Develop Interview Sheet to customize UOCs**

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After analyzing results of questionnaire to select UOCs, the interview team should visit IRG members for further discussions to customize each Unit of Competence by asking specific comments for training contents. The questionnaire sheets consist of the briefing of units of competency and the comment sheet. The briefing of UOCs should include elements and unit descriptor.

See

*Appendix 1-5 A Sample of Briefing of Units of Competence and Questionnaire Sheet*

**Sub STEP4.ii****Analyze Comments**

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The interview team has to summarize all comments given by IRG members. These comments will be referred to the development of training materials and course program in the next process, although all comments will be not necessarily included in the training materials.

See

*Appendix 1-6 A Sample of Qualitative Analysis*

**STEP5****Conduct periodical checks with IRG and individual industry personnel to verify currency and validity of competency units**

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Within a 3–5 year timeframe, TVTO should organize IRG meetings to collect feedback and information about the competencies. IRG members are the most updated and reliable information sources for the latest training needs in industry. Quality indicators obtained from the TVTCs is one of the formal sources of feedback. Reviewing those

various information and opinions, TVTO should consider the timing of updating the competencies. But, it is advisable to review UOCs within 5 years to ensure that they still represent the needs of the industry and that they offer the flexibility to ensure that they can be applied to the range of enterprises within the industry.

# APPENDICES



## **Appendix 1-1: Background of Certificate in Australian Training Package**

In the Australian Automotive Industry Training Package for Retail, Service and Repair, mostly Certificates 1 and 2 can be preferable level for high school students or equivalent. The courses provided at these levels are not considered as professional training courses, but for the entry level into the workforce. They are designed to provide knowledge and skills for people to carry out entry level tasks in the inspection, service and maintenance of vehicles.

On the other hand, most graduates of Certificate 3 are trained to be a professional workforce as automotive mechanics. There are no specific automotive prerequisite knowledge and skill requirements for this course, but students entering the course are expected to have successfully completed their secondary education.

## Appendix 1-2: A Sample of Selection of Units of Competence

For example, if the target training course is Certificate 3 level in the Electrical area of auto mechanics for light vehicles, there is a similar course entitled Certificate 3 in Automotive Mechanical Technology: AUR30405 in Page 115 in the PDF file of AUR05\_1. The qualification requirements are stated as follows:

### QUALIFICATION REQUIREMENTS

36 units of competence at levels 2, 3 or 4 are required to complete this qualification within the specific requirements as set out in the three areas below:

*NOTE: a maximum of 20 units of competence may be at level 2, and a maximum of 2 units of competence may be at level 4*

#### ONE

The following units of competence are compulsory:

AURC270103A	Apply safe working practices
AURT366108A	Carry out diagnostic procedures
AURT271781A	Implement and monitor environmental regulations in the automotive mechanical industry

#### TWO

27 units of competence from the Technical Inventory

#### THREE

6 units of competence from the Retail, Service and Repair or any endorsed Training Package that meet the needs of the enterprise

Area ONE is compulsory and Area THREE comprises electives from all inventories. Area TWO is individually defined according to the types of vehicle that are designated. In relation to light vehicles, the following 15 units of competency are compulsory and the other 12 (27-15) units of competency are electives from the Technical Inventory:

- AURE218676A Test, service and charge batteries
- AURE320666A Repair ignition systems
- AURE321171A Service and repair electronic spark ignition engine management systems
- AURE218708A Carry out repairs to single electrical circuits
- AURT202166A Repair cooling systems
- AURT301166A Repair engines and associated engine components

- AURT303166A Repair petrol fuel systems
- AURT304666A Repair and replace emission control systems
- AURT306170A Inspect, service and/or repair clutch assemblies and associated operating system components
- AURT306666A Repair transmissions (manual)
- AURT310166A Repair hydraulic braking systems
- AURT312666A Repair final drive assemblies
- AURT313166A Repair final drive (driveline)
- AURT315166A Repair steering systems
- AURT316166A Repair suspension systems

When the target training course is Electrical, all Electrical units of competency in the list should be selected as the highest priority units, namely, the first 4 units in the list. In addition, all other units of competency of Certificate 1 to 3 levels in the electrical area have to be selected for the target training course. These units are listed in Electrical Group of Electrical Ancillary Systems and Accessories Cluster in Technical Inventory in Page 182 in the PDF file of AUR05\_1.

As a result, the following 21 units of competency have been selected to define competency standard for the target training course. Note that three units of competency of No. 19, 20 and 21 are included as typical employability competency standards.

Table 1-6: List of Units of Competence for Electrical Area in Auto Mechanic

1	AURE218664A	Remove and replace electrical/electronic units/assemblies
2	AURE218670A	Service, maintain or replace batteries
3	AURE218676A	Test, service and charge batteries
4	AURE218708A	Carry out repairs to single electrical circuits
5	AURE218764A	Remove, refit and test electrical component for normal operation following body repair activities
6	AURE219331A	Install, test and repair low voltage wiring/lighting systems
7	AURE219431A	Install, test and repair electrical security systems/components
8	AURE219531A	Install ancillary electrical components
9	AURE220140A	Manufacture and repair wiring harness/looms
10	AURE224008A	Carry out soldering of electrical wiring/circuits
11	AURE318866A	Repair electrical systems
12	AURE318966A	Repair instruments and warning systems
13	AURE319145A	Overhaul charging system alternators
14	AURE319166A	Repair charging systems
15	AURE319245A	Overhaul starting motors
16	AURE319266A	Repair starting systems
17	AURE320666A	Repair ignition systems
18	AURE321171A	Service and repair electronic spark ignition engine management systems
19	AURC270103A	Apply safe working practices

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20 AURC270688A Work effectively with others

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21 AURC270421A Establish relations with customer

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## Appendix 1-3: A Sample of Questionnaire Sheet

In case of the second pilot course in the JICA Project, the questionnaire sheets was prepared, consisting of a list of units of competency and brief description of Unit of Competence, as shown below:

Table 1-7: Questionnaire Sheet

Occupation	Service Mechanic		
Qualification Title	Certificate II in Automotive Vehicle Servicing		
Qualification Code	AUR20505		
Description	Suitable for persons working in an automotive dealership or independent workshop as a service mechanic on light vehicles		
Unit Code	Unit Title	Hours	Very important → Not needed 5 → 0
AURC251356A	Read in the workplace	20	
AURC270103A	Apply safe working practices	20	
AURT270278A	Use and maintain workplace tooling and equipment	20	
AURT125667A	Use and maintain basic measuring equipment	15	
AURC272003A	Apply environmental regulations and best practice in a workplace or business	20	
AURT217665A	Remove, fit and inspect wheel assemblies	20	
AURE218708A	Carry out repairs to single electrical circuits	40	
AURE218676A	Test, service and charge batteries	15	
AURT202170A	Inspect and service cooling systems	10	
AURT215170A	Inspect and service steering systems	10	
AURT216170A	Inspect and service suspension systems	10	
AURT210170A	Inspect and service braking systems	20	
AURT306170A	Inspect, service and/or repair clutch assemblies and associated operating system components	30	
AURT206670A	Inspect and service transmissions (manual)	10	
AURT207170A	Inspect and service transmissions (automatic)	10	
AURT201170A	Inspect and service engines	20	
AURT203170A	Service petrol fuel systems	15	
AURT204670A	Inspect and service emission control systems	10	
AURT213170A	Service final drive (driveline)	5	
AURT212670A	Service final drive assemblies	5	
AURT200108A	Carry out servicing operations	20	
	<b>Total Hour</b>	<b>345</b>	

### **Sample of Brief Explanation of Unit of Competence**

#### *AURC251356A Read in the workplace*

Unit descriptor: This unit covers the competence required to read business texts/manuals, so decisions can be made on similar terms/conditions, or interpret manuals to enable assistance to others for problem solving.

#### *AURT270278A Use and maintain workplace tooling and equipment*

This unit covers the competence required to select, safely use and maintain workplace tooling and equipment.

The unit includes identification and confirmation of work requirement, preparation for work, selection, use, servicing, maintenance and storage of tooling and equipment and completion of work finalization processes, including clean-up and documentation.

#### *AURTI25667A Use and maintain basic measuring equipment*

This unit covers the competence required to use and maintain measuring equipment used in general repair and of a basic nature.

The unit includes identification and confirmation of work requirement, preparation for work, conduct of measurements, analysis and documenting of outcomes, maintenance of equipment and the completion of work finalization processes, including clean-up and documentation.

## Appendix 1-4: A Sample of Analysis to Select Units of Competence

The following analysis shows analysis on overall rating and analysis by company groups and company sizes in case of the JICA Project. However you can add analysis in various ways, depending on your needs.

### (1) Analysis on Overall Rating

The average marks of overall rating of 21 units of competency are shown in Figure 1-4 and Table 1-8.

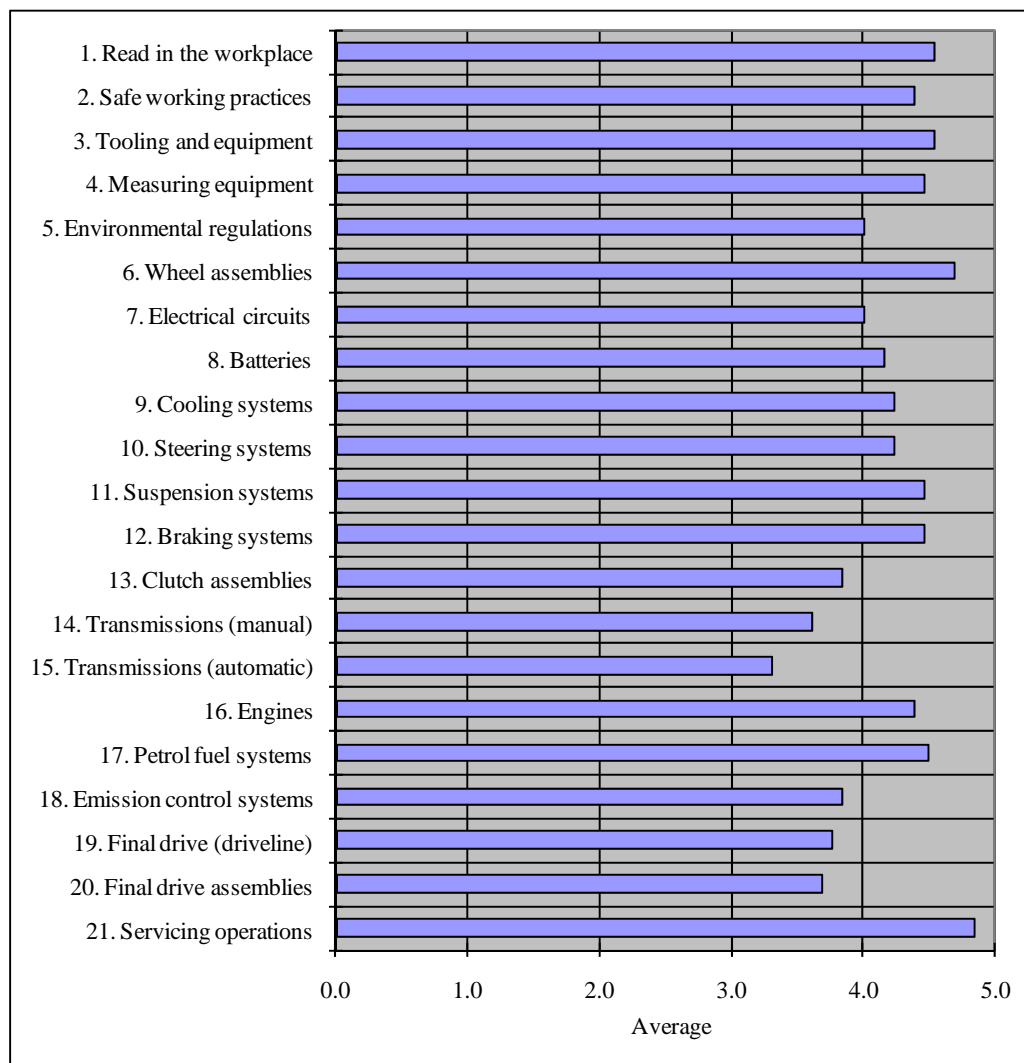


Figure 1-4: Average Overall Rating of Units of Competence

Table 1-8: Average Overall Rating in Descending Order

	Average	Rating Distribution							
		5	4	3	2	1	0	5+4	1+0
21. Servicing operations	4.8	11	2	0	0	0	0	13	0
6. Wheel assemblies	4.7	10	2	1	0	0	0	12	0
3. Tooling and equipment	4.5	11	0	0	2	0	0	11	0
1. Read in the workplace	4.5	8	4	1	0	0	0	12	0
17. Petrol fuel systems	4.5	9	0	3	0	0	0	9	0
12. Braking systems	4.5	10	1	0	2	0	0	11	0
11. Suspension systems	4.5	8	3	2	0	0	0	11	0
4. Measuring equipment	4.5	8	3	2	0	0	0	11	0
16. Engines	4.4	8	2	3	0	0	0	10	0
2. Safe working practices	4.4	9	2	1	0	1	0	11	1
10. Steering systems	4.2	8	2	1	2	0	0	10	0
9. Cooling systems	4.2	5	7	0	1	0	0	12	0
8. Batteries	4.2	6	4	2	1	0	0	10	0
7. Electrical circuits	4.0	6	4	1	1	1	0	10	1
5. Environmental regulations	4.0	7	2	2	1	1	0	9	1
18. Emission control systems	3.8	6	3	2	0	2	0	9	2
13. Clutch assemblies	3.8	6	5	0	0	0	2	11	2
19. Final drive (driveline)	3.8	6	2	3	1	0	1	8	1
20. Final drive assemblies	3.7	4	4	4	0	0	1	8	1
14. Transmissions (manual)	3.6	5	4	2	0	0	2	9	2
15. Transmissions (automatic)	3.3	4	3	3	1	0	2	7	2

## (2) Analysis by Company Groups

In order to examine the difference of prioritizing units of competency by company groups, overall rating of units of competency can be analyzed, as shown in Table 1-9 and Figure 1-5.



Table 1-9: Overall Rating by Company Groups

No	Unit Code	Unit Title	Saipa Group	Iran Khodro Group	Others
1	AURC251356A	Read in the workplace	4.7	4.0	4.7
2	AURC270103A	Apply safe working practices	4.3	4.3	4.7
3	AURT270278A	Use and maintain workplace tooling and equipment	4.1	5.0	5.0
4	AURT125667A	Use and maintain basic measuring equipment	4.0	5.0	5.0
5	AURC272003A	Apply environmental regulations and best practice in a workplace or business	3.7	4.0	4.7
6	AURT217665A	Remove, fit and inspect wheel assemblies	4.9	4.0	5.0
7	AURE218708A	Carry out repairs to single electrical circuits	3.6	4.3	4.7
8	AURE218676A	Test, service and charge batteries	4.4	3.7	4.0
9	AURT202170A	Inspect and service cooling systems	4.4	3.7	4.3
10	AURT215170A	Inspect and service steering systems	4.0	4.3	4.7
11	AURT216170A	Inspect and service suspension systems	4.3	4.3	5.0
12	AURT210170A	Inspect and service braking systems	4.1	4.7	5.0
13	AURT306170A	Inspect, service and/or repair clutch assemblies and associated operating system components	3.3	4.7	4.3
14	AURT206670A	Inspect and service transmissions (manual)	3.0	4.3	4.3
15	AURT207170A	Inspect and service transmissions (automatic)	2.6	4.0	4.3
16	AURT201170A	Inspect and service engines	4.3	4.3	4.7
17	AURT203170A	Service petrol fuel systems	4.4	4.3	5.0
18	AURT204670A	Inspect and service emission control systems	3.1	4.7	4.7
19	AURT213170A	Service final drive (driveline)	3.4	4.0	4.3
20	AURT212670A	Service final drive assemblies	3.6	4.0	3.7
21	AURT200108A	Carry out servicing operations	5.0	4.7	4.7
Average			4.0	4.3	4.6

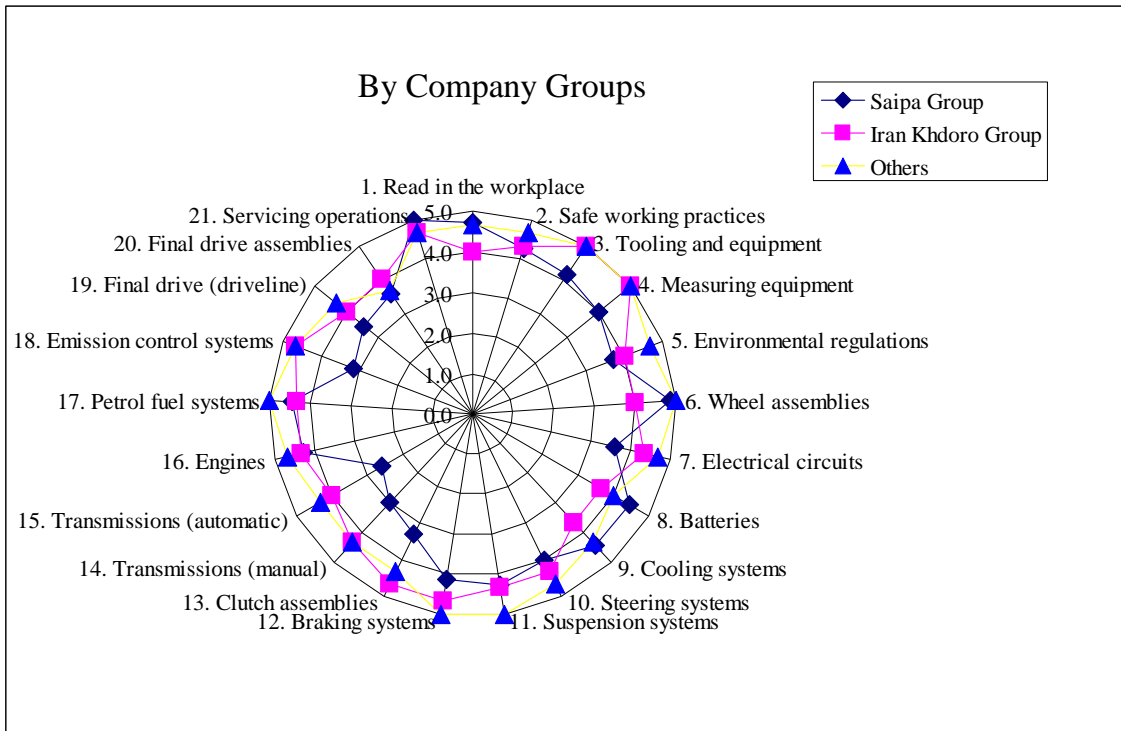


Figure 1-5: Overall Rating by Company Groups

### (3) Analysis by Company Sizes

In order to examine the difference of prioritizing units of competency by company sizes, overall rating of units of competency was analyzed, as shown in Table 1-10 and Figure 1-6.

Table 1-10 Analysis of Overall Rating by Company Sizes

No	Unit Code	Unit Title	Large	Small/medium
1	AURC251356A	Read in the workplace	4.6	4.5
2	AURC270103A	Apply safe working practices	4.3	4.5
3	AURT270278A	Use and maintain workplace tooling and equipment	4.3	5.0
4	AURT125667A	Use and maintain basic measuring equipment	4.3	4.8
5	AURC272003A	Apply environmental regulations and best practice in a workplace or business	3.9	4.3
6	AURT217665A	Remove, fit and inspect wheel assemblies	4.6	5.0
7	AURE218708A	Carry out repairs to single electrical circuits	3.9	4.3
8	AURE218676A	Test, service and charge batteries	4.0	4.5
9	AURT202170A	Inspect and service cooling systems	4.0	4.8
10	AURT215170A	Inspect and service steering systems	4.0	4.8
11	AURT216170A	Inspect and service suspension systems	4.3	4.8
12	AURT210170A	Inspect and service braking systems	4.2	5.0
13	AURT306170A	Inspect, service and/or repair clutch assemblies and associated operating system components	3.4	4.8
14	AURT206670A	Inspect and service transmissions (manual)	3.2	4.5
15	AURT207170A	Inspect and service transmissions (automatic)	3.0	4.0
16	AURT201170A	Inspect and service engines	4.2	4.8
17	AURT203170A	Service petrol fuel systems	4.3	5.0
18	AURT204670A	Inspect and service emission control systems	3.3	5.0
19	AURT213170A	Service final drive (driveline)	3.3	4.8
20	AURT212670A	Service final drive assemblies	3.4	4.3
21	AURT200108A	Carry out servicing operations	4.9	4.8
Average			4.0	4.7

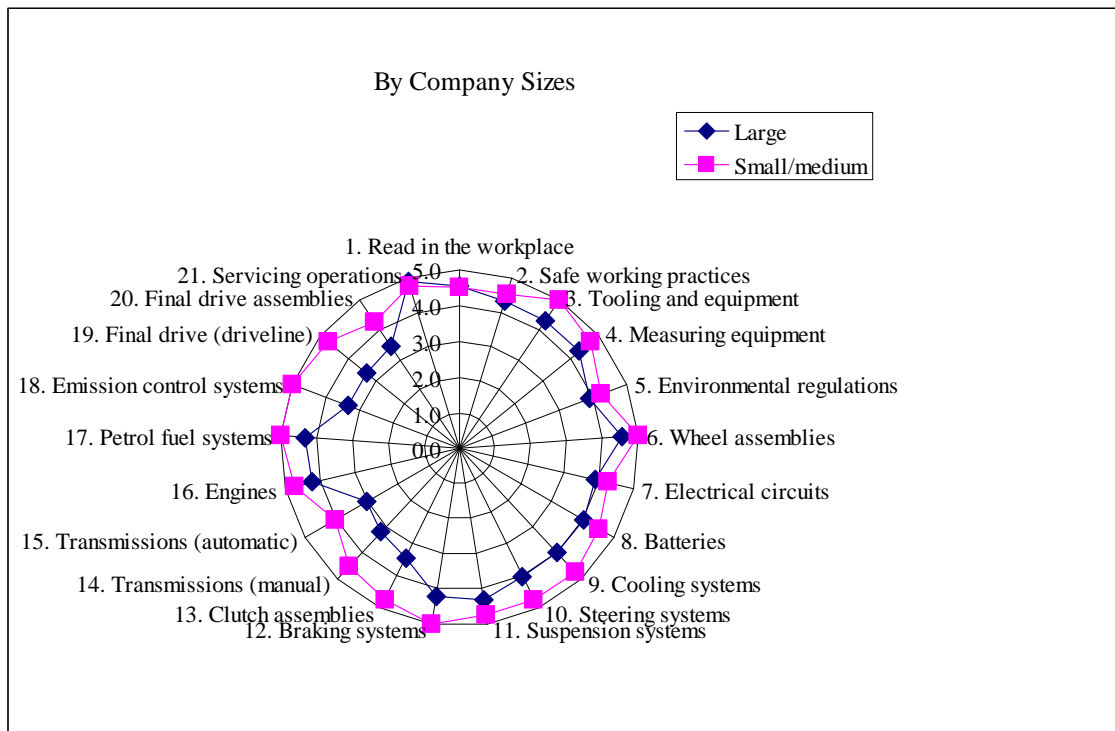


Figure 1-6: Analysis of Overall Rating by Company Sizes

(4) Identification of reasons for discrepancy of priority

Sample analysis is shown below.

**Overall analysis**

- ✓ There are some difference of priority among units of competency, ranging from 4.8 to 3.3 on average marks, from 11 to 4 for number of reply of 5 point and from 13 to 7 for the total number of reply of 4 and 5 points;
- ✓ Ratings of interviewees vary widely in units of competency particularly with lower average marks such as unit numbers of 18, 13, 14 and 15. (See Table 1-10) These areas are emission control, clutch and transmission. This implies that technical experts have their individual ideas in evaluating importance of competency standard for their new employees. Some IRG members might evaluate UOCs based on service areas in their own workshops; and,
- ✓ Many UOCs were highly prioritized because these skills were needed for any types of workshops as fundamental and common competencies.

### *Analysis by company groups*

In particular, the following 4 units of competency have some difference, in all of which Saipa group rated lowest. This might be caused that technical experts in dealerships of Saipa group think these skills are not covered by their own workshops.

- 13. Inspect, service and/or repair clutch assemblies and associated operating system components
- 14. Inspect and service transmissions (manual)
- 15. Inspect and service transmissions (automatic)
- 18. Inspect and service emission control systems

### *Analysis by company groups*

The following 5 units of competency have relatively large difference, in all of which small and medium size companies rated higher. This is because those repair services are their main works. This implies that priority is different among company sizes or nature of repair services.

- 13. Inspect, service and/or repair clutch assemblies and associated operating system components
- 14. Inspect and service transmissions (manual)
- 15. Inspect and service transmissions (automatic)
- 18. Inspect and service emission control systems
- 19. Service final drive (driveline)

Small and medium scale companies put higher priority in almost all units of competency. This might be because all units of competencies are for basic training course mainly for service and inspection.

## Appendix 1-5: A Sample of Briefing of Units of Competence and Questionnaire Sheet

Table 1-11: Briefing of Units of Competence

4	AURT125667A	Use and maintain basic measuring equipment	a	To use and maintain measuring equipment used in general repair and of a basic nature	<ul style="list-style-type: none"> <li>➤ Measuring equipment, including split levels, depth gauges, steel rulers, tape measures, T-squares and straight edges</li> <li>➤ Work involved includes measurement of length, width, squareness, flatness and depth, using imperial and metric measurement</li> </ul>
			b	To identify and confirm work requirement, preparation for work, conduct of measurements, analysis and documenting of outcomes, maintenance of equipment and the completion of work finalization processes, including clean-up and documentation	
5	AURC272003A	Apply environmental regulations and best practice in a workplace or business	a	To identify and apply environmental regulations and avoid potential hazards in a workplace or business.	<ul style="list-style-type: none"> <li>➤ Work involves normal activities of an automotive business, including the occupations of glazing, accessory fitting, window tinting, trimming and bicycles</li> <li>➤ This unit is applicable to Certificate II qualifications. Other specific environmental units of competence apply to marine, paint and panel preparation and some mechanical stream qualifications involving the removal of components containing oils or other fluids</li> </ul>
6	AURT217665A	Remove, fit and inspect wheel assemblies	a	To remove, fit and inspect wheel assemblies	<ul style="list-style-type: none"> <li>➤ Wheel assemblies may include those for light vehicles only</li> <li>➤ Wheel assemblies may be spoked, split, well, safety and disc and be of steel or alloy construction</li> </ul>
			b	To identify and confirm work requirement, preparation for work, removal, fitting and adjustment of wheel assemblies and completion of work finalization processes, including clean-up and documentation.	

Table 1-12: Comment Sheet for Unit of Competence (Selected units of competency only)

No	Unit Code	Unit Title	Comments
1	AURC251356A	Read in the workplace	
2	AURC270103A	Apply safe working practices	
3	AURT270278A	Use and maintain workplace tooling and equipment	
4	AURT125667A	Use and maintain basic measuring equipment	
5	AURC272003A	Apply environmental regulations and best practice in a workplace or business	

## Appendix 1-6: A Sample of Qualitative Analysis

No	Unit Code	Unit Title	Comment Summary from IRG Members
1	AURC251356A	Read in the workplace	➤ Add ability to make technical reports by using timetable, flowchart, charts and graphs
2	AURC270103A	Apply safe working practices	➤ Prepare some material safety sheets, which is mentioned how to handle the material regarding its chemical reaction and teach them in the class room
3	AURT270278A	Use and maintain workplace tooling and equipment	➤ Omit auto picker, bag palletize, belt conveyors, strapping machine, carton crushers, disposal bins, seals and ties, shrink wrap, welding equipment including OXY, ARC, MIG and TIG ➤ Develop training materials like pamphlet and film to identify tools and equipment
4	AURT125667A	Use and maintain basic measuring equipment	➤ Add measurement of run-out and free-play ➤ Add micrometers, specialized measurement devices, identification of bolts
5	AURC272003A	Apply environmental regulations and best practice in a workplace or business	➤ Add displacement of damaged parts which can be hazardous for environment ➤ Merge this unit with OH &SAS Unit of Competence (the integrity of unit 2 &5)





# **PART 2: PROCESS FOR DEVELOPING CURRICULUM TO SUPPORT CBT DELIVERY**



# EXPLANATORY NOTE

## DEFINITION OF CBT CURRICULUM

Curriculum, in a CBT approach to TVT, has been defined as "a set of planned learning experiences offered within a training environment/program, which is represented by appropriate documentation and includes experiences that result from that document".

The key inference in this definition is that, although all activity is planned and incorporated in various kinds of documentation, CBT curriculum is an active, ongoing process. The written documentation, although admittedly very important, is only one component.

In other words, development of curriculum needs to continue as trainers and trainees interact in the training process.

Changes in the training contexts, and emerging needs during interaction with trainees, require training personnel to maintain a dynamic approach to curriculum.

It is important therefore to ensure that the trainers, and other designated personnel involved in the training process, are provided with the required time and technical and instructional capability to enable them to actively engage in an ongoing process of re-developing and adapting the curriculum for a course.

It is not productive for a set of curriculum documentation to be produced, disseminated to providers and then used without specific customization to respective training contexts and applications. It needs ongoing adaptation, customization and revision in response to a range of factors including the interaction between trainers and trainees.

### Key features of CBT Curriculum:

- ✓ It involves a process of logical and systematic breakdown of information and tasks from the UOCs;
- ✓ The curriculum only becomes meaningful when the trainers/trainees become involved in the process;
- ✓ It is an ongoing, ever-changing process; and,
- ✓ It is dynamic – its development depends on the interaction between trainers and

trainees.

# HOW CBT CURRICULUM IS DIFFERENT FROM MORE TRADITIONAL CONCEPTS

Central to the development of curriculum in the CBT approach is the reliance on Units of Competence (industry job competency standards) and the information these units provide.

As explained in Chapter 1, the Units of Competence (UOCs) provide a great deal more information than simply describing the job standard.

The UOC:

- ✓ Breakdown the job requirements into Competency Elements;
- ✓ Break down the Elements further into Performance Criteria;
- ✓ Provide a Range Statement describing the scope and context of the work required; and,
- ✓ Provide an Evidence Guide which is a description of the guidelines and context necessary to assess trainees for competence.

Trainers/curriculum developers need to analyse the Units of Competence, incorporating all the job requirements and assessment information provided, and plan appropriate experiences and support materials which can assist trainees to acquire the prescribed knowledge and skills. The planning documentation, together with support materials (learning resources) comprises CBT curriculum.

As illustrated by the Figure below, whereas the definition of competency standards is the responsibility of industry reference groups, the development of the curriculum and associated components is the primary responsibility of training providers and trainers.

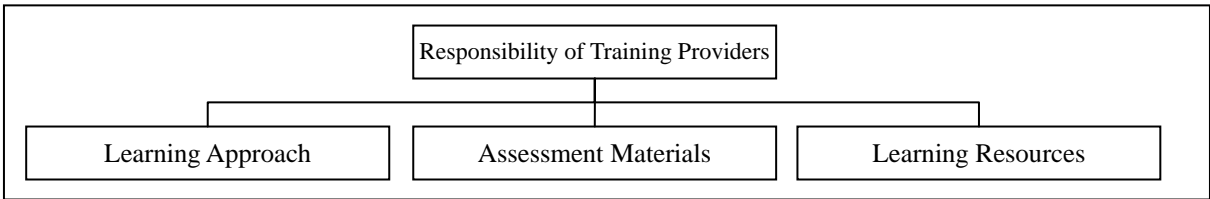


Figure 2-1 Responsibility of Training Providers

# DEVELOPMENT OF CURRICULUM FROM INDUSTRY COMPETENCY STANDARDS

The competency standards defined by IRG, and classified in the Training Packages, are the basis for the design and development of all curriculum materials necessary to deliver the courses effectively.

In the first instance curriculum developers need to analyze each UOC which provides specific training and assessment requirements.

The Figure below illustrates the logical and sequential flow from Training Courses (collections of Units of Competence) to training sessions (the most basic component of the training process).

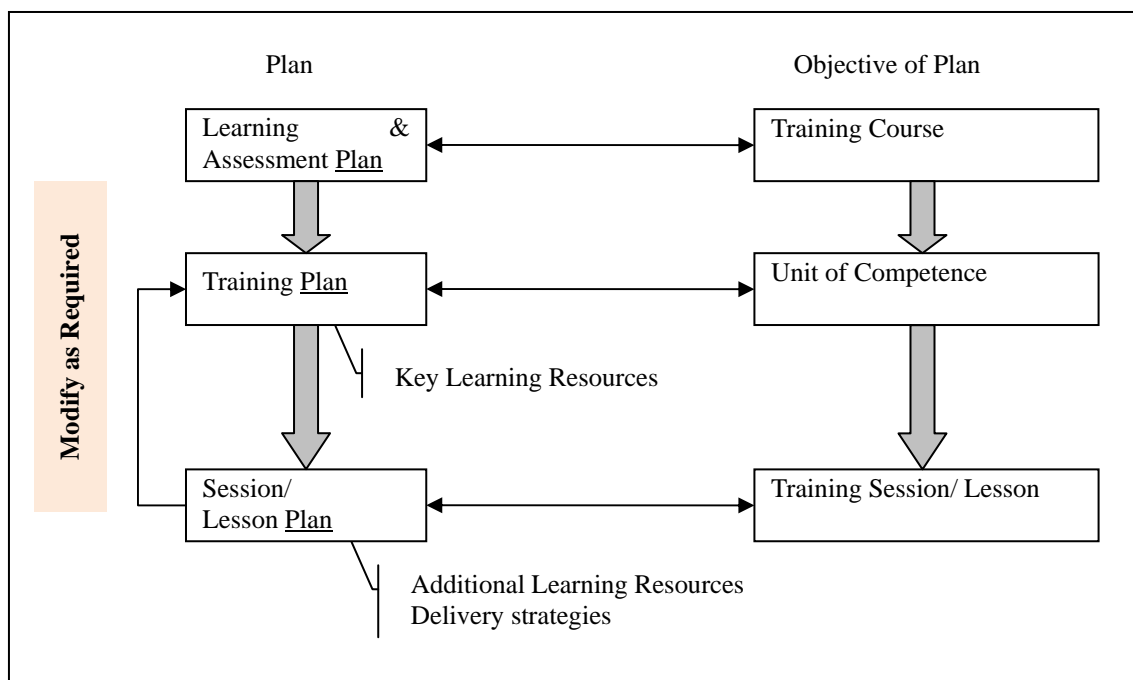


Figure 2-2 Flow from Training Courses to training sessions and their Plans

Each course is comprised of Units of Competence, each of which (as illustrated in the Figure 2.2) corresponding Elements.

Training Session/Lesson consists of one or several performance criteria. It sometimes has less than one performance criteria, depending on the volume of performance criteria and length of lesson. Course consists of several units of competency to be delivered

### **CBT Curriculum Key Issues to be Considered**

The following is a list of the information and steps necessary for training providers, or designated personnel within provider institutions and individual trainers to follow, in developing curriculum to support the delivery of Units of Competence:

- ✓ Training packages contain industry competency standards for all jobs in industry sectors;
- ✓ The basic components of Training Packages are Units of Competencies (UOCs);
- ✓ UOCs are selected, according to given "packaging rules", to be delivered as accredited courses;
- ✓ A Learning and Assessment Plan should be written for each course (ie. for the group of selected UOCs);
- ✓ There should be a Training Plan written for each individual UOC. The Training plan should address important issues such as key Learning Strategies and choice of Learning Resources (Trainee Workbooks are only 1 kind of resource);
- ✓ UOCs are broken down into Elements. For planning purposes, the Elements can be regarded as "training modules". Elements are further broken down into "performance criteria";
- ✓ For planning purposes, each performance criteria can be planned as individual training sessions/lessons;
- ✓ Lesson plans need to be developed for each session/lesson. These plans need to consider all appropriate requirements for achieving competencies in relation to the stated performance criteria – including learning resources such as handouts, videos, models, CDROMS etc.); and,
- ✓ The curriculum development process should be developed on an ongoing basis as a result of the interaction between the trainer and trainees.

Developing curriculum is a complex process and each process has various kind of interaction between each process. The following steps explain how this process can be developed to ensure that the training is logically and systematically delivered.





# CBT ASSESSMENT

## Definition of CBT Assessment

Assessment is the process of collecting evidence and making judgements on the nature and extent of progress toward the performance requirements set out in a standard of a learning outcome.

Assessment is also about making a judgment, at the appropriate point, as to whether the competency has been achieved.

## Overview of assessment

CBT assessment is:

- ✓ Criterion based – assessed against standard criteria or benchmarks (Depending on circumstances, benchmarks may be competency standards, learning outcomes or other performance outcomes);
- ✓ Evidence-based – decisions are based on the evidence provided by the trainee;
- ✓ Formative (progressive) rather than summative (conducted merely at the end of the course);
- ✓ Participatory - trainees are involved in all aspects of the assessment process;
- ✓ Sufficient - There must be enough evidence to demonstrate consistency of competency; and,
- ✓ Current - The evidence must demonstrate current performance of competency.

## The role of an assessor

The role of an assessor is to compare a participant's evidence against the criteria for assessment and make a judgment about whether competency has been achieved. To undertake this role an assessor must be able to:

- ✓ Interpret the criteria for assessment;
- ✓ Demonstrate high skills in the area being assessed;
- ✓ Demonstrate interpersonal skills;
- ✓ Apply the relevant assessment techniques;
- ✓ Ensure that evidence provided is sufficient; and,

- ✓ Make impartial judgments.

### **Role of the Training Organization in Assessing**

Registered Training organizations are required to identify, negotiate, plan and implement appropriate learning and assessment strategies to meet the needs of clients including:

- ✓ Assessment strategies for each Training Package qualification and accredited course on its scope of registration; and,
- ✓ Validation of assessment strategies.

### **Basic Principles of CBT Assessment**

- |                    |   |
|--------------------|---|
| <b>Validity</b>    | <ul style="list-style-type: none"> <li>✓ The evidence will prove that the individual has the required skills and knowledge as specified in the relevant Unit of Competence</li> <li>✓ Will meet each element of the benchmark</li> <li>✓ Competencies (benchmarks) are assessed holistically</li> </ul> |
| <b>Reliability</b> | <ul style="list-style-type: none"> <li>✓ The evidence will prove that the individual has the required skills and knowledge as specified in the relevant Unit of Competence</li> <li>✓ Will meet each element of the benchmark</li> <li>✓ Competencies (benchmarks) are assessed holistically</li> </ul> |
| <b>Fairness</b>    | <ul style="list-style-type: none"> <li>✓ The assessor objectively considers all evidence, is open and transparent about all assessment decisions, and takes into account relevant characteristics and needs of the candidate</li> </ul>   |
| <b>Flexibility</b> | <ul style="list-style-type: none"> <li>✓ Assessments can be either on- or off- the job, and a mutually convenient times and situations</li> </ul>   |

### **Forms of evidence**

- ✓ Demonstration of real work;
- ✓ Demonstration in a simulated environment;
- ✓ Contents of a portfolio;
- ✓ Role-play;
- ✓ Video recordings of a performance;
- ✓ Project-based;
- ✓ Products made;
- ✓ Case studies;

- ✓ Processes used and documented;
- ✓ Answers to questions;
- ✓ Procedures completed; and,
- ✓ Reports from third parties (references).

Assessment tools and methods must collect enough evidence in order for the assessor to be enabled to make the assessment judgment. Usually this means collecting evidence that demonstrates competency over a time period and in different situations.

A good way of ensuring sufficient evidence is through using a combination of different methods and tools

**Direct Evidence** Direct evidence is obtained when an assessor observes the candidate's performance and makes a judgment about whether the candidate has competently performed the required task or series of tasks. This observation could be conducted in a variety of ways. For example the assessor could observe the candidate performing a range of tasks in the workplace, and question the candidate; view a video of the candidate's performance; or observe the candidate's performance in a simulated workplace.

**Indirect Evidence** Indirect evidence is used when it is not possible or desirable for a candidate to be observed during their actual performance of tasks in the workplace; it may be too costly, involve risks or potentially breach confidentiality or privacy. Assessment methods used to collect indirect evidence could include examination of a finished product with evidence to authenticate that it is the candidate's work.

**Supplementary Evidence** Supplementary evidence is additional evidence supporting direct and indirect evidence. It is often obtained through third party sources, for example, from members of the candidate's work team or managers, work journals or evidence of completed training.

**Combination of Evidence** Usually, a combination of types of evidence is used to assess competence. For example, in the automotive sector, you could observe someone on the job performing a task such as inspecting

brakes, ask them about possible solutions in a simulated situation or both.

### **Assessment methods**

The following are examples of a few methods that can be used to assess competency:

<b>METHOD</b>	<b>EXAMPLE</b>
Direct observation	<ul style="list-style-type: none"> <li>➤ Real work and/or real time activities</li> <li>➤ Work activities in simulated workplace environment</li> </ul>
Questioning	<ul style="list-style-type: none"> <li>➤ Self-assessment</li> <li>➤ Verbal questioning</li> <li>➤ Written questioning (including computer-based)</li> <li>➤ Interview</li> <li>➤ Questionnaire</li> <li>➤ Verbal or written examinations</li> </ul>
Review of products	<ul style="list-style-type: none"> <li>➤ Work samples or products</li> <li>➤ Products as a result of a project</li> </ul>
Structured activities	<ul style="list-style-type: none"> <li>➤ Projects</li> <li>➤ Presentation</li> <li>➤ Role-play</li> <li>➤ Case study</li> <li>➤ Fault finding</li> </ul>
Portfolio	<ul style="list-style-type: none"> <li>➤ Documents such as work samples</li> <li>➤ Product with supporting documentation</li> <li>➤ Historical evidence</li> <li>➤ Journal/log book</li> <li>➤ Information about life experience</li> <li>➤ Collecting of work samples compiled by candidate</li> </ul>
Third party feedback	<ul style="list-style-type: none"> <li>➤ Testimonials or reports from employers or supervisors</li> <li>➤ Evidence of training</li> <li>➤ Interview employer, supervisor, peer</li> <li>➤ Authenticated prior achievements</li> </ul>

### **Assessment Tools**

Assessment tools are for gathering evidence based on the selected assessment methods. They can also be procedures to be followed when conducting assessment.

Assessment tools need to be designed carefully to ensure that:

- ✓ Assessments are conducted according to the principles of assessment; and,

- ✓ The collected evidence meets the rules of evidence.

## The Purpose of Assessment Tools

<b>Purpose of Assessment Tool</b>	<b>Example of Assessment Tool</b>
To provide guidance and structure for the candidate/assessor in collecting evidence	A checklist to be used in the demonstration of a series of tasks
To guide and support the candidate in understanding and participating in the assessment process	Instructions to the candidate about how to be involved in a role-play activity
To give clarity and confidence to the assessor and/or candidate in working through the process	Clear criteria for a product to be assessed against
To define the key performance indicators to be met by the candidate	List of criteria for a candidate when being involved in a simulation, so they know what particular areas will be assessed
To ensure the rules of evidence and principles of assessment are addressed in the assessment process	Matrix of assessment methods against the evidence requirements
To be used as a recording and reporting mechanism	List of questions with space to record responses and feedback given, as well as whether candidate is competent or whether future evidence is required
To provide objectivity and consistency in evidence collection	Set of predetermined questions to be asked
To enable recognition	Self-assessment checklist, with suggestions of types of evidence
To provide a tool to document the need for further action	Any checklists that provide room for feedback and advice given for further action

<b>Assessment tool</b>	<b>Example</b>
Observation checklist	➤ Real work, role-play, simulation, third-party observation checklist
Verbal Questions	➤ Interview, case study, real work performance, simulation
Prepared responses	➤ For each set of verbal and written questions used in interviews, case study, real work, simulation, self assessment
Scenario, script	➤ Case study, role-play
Instructions	➤ For each assessment tool for the: ➤ Candidate ➤ Assessor ➤ Third-party
Debriefing guidelines	➤ Role-play, simulations
Recording tool	➤ For each method of assessment ➤ For each method for third party
Written questions	➤ Tests, exams, case studies, true/false questions, multiple-choice, essay, self-assessment items, completion question, short answer questions
Project brief	➤ Project, assignment, product, process design
Review checklist for product	➤ Project, practical demonstration, portfolio
Portfolio guidelines	➤ RPL/RCC portfolio, project portfolio

### **Assessment Validation**

The most common process for assessment validation is through moderation. It is a process of comparing standards of assessment across different courses, institutions and/or organizations to ensure assessments are valid, reliable and fair.

Assessment moderation can be conducted before, during and after assessment.

Assessment validation involves comparing, evaluating and reviewing assessment processes, methods and tools and the subsequent assessment decisions. It can include assessment moderation activities in which assessors discuss and reach agreement about assessment processes and outcomes in a particular industry or industry sector, developing a shared understanding of specific Training Packages.

The benchmarks for assessment validation is the competency standard.



# CBT TRAINING DELIVERY

As defined earlier in this chapter, CBT curriculum development is an ongoing, dynamic process. It involves drafting appropriate plans, organizing and breaking down information and tasks and documenting these.

However the process also involves interaction between trainers and trainees. The manner in which written information is communicated (delivered) to trainees is just as important. The following describes the delivery strategies that need to be considered to enable curriculum to be effectively implemented

## Communication Skills

A skilled trainer needs to develop effective communication skills. Such a trainer is aware of factors that can cause communication to break down:

- ✓ using an inappropriate medium;
- ✓ being distracted or interrupted;
- ✓ physical factors such as a hearing impediment;
- ✓ prejudging the information;
- ✓ making judgments about the speaker; and,
- ✓ feeling uncomfortable.

A person using effective listening skills:

- ✓ concentrates when someone is speaking to them;
- ✓ does not interrupt;
- ✓ faces the speaker;
- ✓ avoids distractions;
- ✓ asks questions to check that they heard correctly;
- ✓ nods head etc to show the speaker that they are listening;
- ✓ tries to understand the information being conveyed; and,

- ✓ keeps an open mind.

A person using effective speaking skills:

- ✓ speaks clearly and audibly;
- ✓ speaks at an appropriate pace – not too fast or too slow;
- ✓ changes the pitch of their voice; and,
- ✓ faces the audience as they speak.

### **The Importance of Non Verbal Communication**

Only a small percentage of the information that we convey to others is communicated through the actual words spoken. Much information is conveyed through:

- ✓ Hand gestures;
- ✓ Facial expressions;
- ✓ Posture;
- ✓ Personal space; and,
- ✓ Tone of voice.

Trainers need to be aware of non verbal communication so that:

- ✓ Their nonverbal messages support what they are saying; and,
- ✓ They are perceptive to the messages that the trainees send to them.

### **Questioning Skills**

Questioning helps a trainer to discover:

- ✓ What a trainee already knows;
- ✓ What a trainee has learnt; and,
- ✓ Areas that the trainee may be unsure of.

### Open Questions

These questions are far more specific, they can be answered with 'yes', 'no' or one word. Such questions can be useful to follow after an open question. A trainee may have given a detailed response but may have missed out one vital point. A trainer may use a closed question to check on that point.

### Tips When Asking Questions

- ✓ Only ask questions that you feel that the trainees are able to answer;
- ✓ Trainees may require a few seconds to think of a response. Allow them to have a few seconds to think;
- ✓ Be prepared to reword the question;
- ✓ Trainees may understand the question more clearly if it is worded differently. Try to ask open questions. This may require some practice or you may like to prepare some questions prior to each training session;
- ✓ Praise trainees for their responses;
- ✓ Use questions to maintain the attention of participants;
- ✓ Avoid being predictable in your questioning; and,
- ✓ Use 'safe' questions to involve quiet participants.

### Answering Questions

Trainees will ask many questions of their trainer. If trainees ask a question a trainer can give a clear response straight away. However, the trainer might choose to ask the question to the class. This can often prompt discussion and after the discussion the trainer can clarify relevant details or points. Or another trainee may be able to answer the question. This would allow the trainees to be more involved in their learning.

If a trainer is unable to answer a question they should tell the trainees how to find out the answer or tell them that they will find out and let them know.

### Giving Feedback

Trainees appreciate feedback. It enables trainees to:

- ✓ Gauge how well they are learning; and,
- ✓ Identify areas they are not sure of and develop strategies to improve in these areas.

### **Tips for Giving Feedback**

- ✓ Ask the trainees how they feel they have performed. They may be able to make many of the comments that you intended to make;
- ✓ Be aware of the trainee's self esteem. Word feedback so as to help the trainee to improve and learn rather than to point out faults;
- ✓ Begin by offering praise then discuss areas that could be improved. Avoid just telling the trainee what they did wrong. Highlight the good;
- ✓ Focus on the skill or knowledge rather than the person;
- ✓ Show respect for trainees by giving feedback in private. Select an appropriate time and place to give feedback;
- ✓ Do not give too much feedback. Give the amount of feedback that you feel the trainee will be able to absorb at the time. If you feel the need to give a great deal of feedback, consider which points will be the most beneficial to the trainee at the time. They may not be able to absorb all that you would like to say, so tell them the points that you feel will benefit them the most;
- ✓ You may need to give negative feedback. Be honest when you give such feedback, but give it in a manner which respects the trainee; and,
- ✓ Remember the importance of confidentiality.

### **Learning styles**

Each trainee has his/her own individual style of learning. Individuals differ in the way they organize their experiences into meanings, values and skills. This means that the trainer must take into account the varying styles of learning when preparing and delivering training.

Learners can be divided into three main groups with different styles of learning. Many individuals will keep to one preferred style but in some situations they may like a combination of styles.

The main styles are:

- ✓ Visual – preference for seeing what is going on. Learners with this preference enjoy reading, watching TV and like to look at photos, cartoons, plans and pictures. Useful resources to use are posters, charts, graphs, visual displays, booklets, handouts and varieties of colors and shapes;
- ✓ Auditory – learning mainly by listening. Auditory learners like to talk and prefer to hear things rather than read them. With these learners it would be good to use question and answer, lectures and stories, audio tapes, discussion pairs or groups, music or slogans; and,
- ✓ Kinesthetic – Learners enjoy learning by doing and remember best through practice. These learners would enjoy learning by team activities, hands-on experience, role-plays and note taking.

## Barriers to Learning

Trainers are aware that differences exist amongst their trainees but it is not enough just to be aware of such differences. The important point is that the trainer recognizes these differences and adopts appropriate strategies to maximize learning. Some differences are:

<b>Possible Barrier</b>	<b>Suggested Solution</b>
<u>Language and literacy</u> Language difficulties caused by not being familiar with the language and language style being used by the trainer	<ul style="list-style-type: none"> <li>• Modify language use</li> <li>• Use simple texts</li> <li>• Use pictorial learning materials</li> <li>• Use paired "buddy system"</li> </ul>
<u>Cultural background</u> Socio-economic, religious beliefs, cultural differences, level of support	<ul style="list-style-type: none"> <li>• Positive person assistance, support and advice</li> <li>• Additional training time</li> </ul>
<u>Physical impairment</u> Poor sight, poor hearing, impaired dexterity, strength level	<ul style="list-style-type: none"> <li>• Prepare seating arrangements</li> <li>• Give additional time to practice</li> <li>• Use pictorial aids</li> </ul>
<u>Previous experience/learning</u> Level of education, type and degree of previous experience	<ul style="list-style-type: none"> <li>• Check previous experiences – can they be used</li> <li>• Support transfer of skills to new situations</li> </ul>
<u>Learning styles</u> Preferred theory to practice or vice versa, likes constant revision/practice, prefers self paced materials to presentations	<ul style="list-style-type: none"> <li>• Incorporate various training methods so that most can use preferred styles</li> <li>• Encourage self-management of learning but provide advice when needed</li> </ul>
<u>Motivation</u> Not highly motivated, not interested, history of failure	<ul style="list-style-type: none"> <li>• Counsel where necessary</li> <li>• Identify and talk through motivational and attitudinal issues</li> <li>• Provide encouragement</li> <li>• Relate training to work experience</li> </ul>
<u>Personality traits</u> Poor self image, loner, insecure about abilities	<ul style="list-style-type: none"> <li>• May be related to poor motivation – counsel where necessary</li> <li>• Use the buddy system</li> <li>• Discuss preferred ways of learning</li> </ul>

## Assessing Trainees

The job of a trainer is to assist trainees to gain new skills and knowledge. When assessing, the trainer provides the trainees with opportunities to demonstrate they are now competent in these areas.

A trainer will design assessment strategies that:

- will provide a reliable result;
- are fair to all trainees; and,
- are flexible and suit the individual needs of trainees.

The trainer may consult with the trainees about how they will be assessed and other details of the assessment.

The aim is not to surprise the trainees with a test. It is to allow the trainees to have the best opportunity to demonstrate that they have gained new skills and knowledge.

## Preparing the Training Area

Importantly, your learners must be encouraged to become involved in the learning experiences. You will need to arrange the classroom or the workshop to reflect this principle.

Some items that you will need to take care of when preparing for classroom presentations are:

- ✓ Move tables to form a U-shaped learning environment where learners want to participate with you as the trainer and each other as learners;
- ✓ Have your overhead projector and screen set up so that everyone can see easily. The same with your whiteboard. Also make sure you have overhead pens and that they work;
- ✓ If you want to prepare some drawings or explanations on the reverse side of the whiteboard, or on butcher's paper, have this ready. Charts, models and so on, which relate to the lesson can also be placed in position before the lesson starts. You can turn them around to face the wall and use them as a "surprise" element in the lesson if you want to; and,
- ✓ Check the lighting. Make sure the lights work and that all learners can see you –

the trainer – and what you are doing.

Some items you will need to give attention to when preparing for training presentations in the workshop are:

- ✓ Clean the area up – make the workshop neat and tidy. Put away any tools or other materials that are not needed for the lesson. Make your training venue a place where your learners want to be;
- ✓ Turn off any machinery that is not going to be used. Try to create an area without too much noise so that learners can hear you and you are not distracted by other noise;
- ✓ Arrange the area so that trainees can easily see what you are doing if you are providing practical demonstrations. This could also mean checking and adjusting the lighting in the area;
- ✓ Samples of work – good and bad – are useful in practical workshop sessions to show learners the quality of work expected;
- ✓ Have all your tools, materials and any other equipment prepared and ready. Make sure the tools work and that the materials are in appropriate condition;
- ✓ Have any training aids – charts, samples, whiteboards, and so on, ready. Place these in position before the lesson and check that they will be able to be seen by your learners;
- ✓ Learners will become restless if they cannot see, or become uncomfortable. If it's appropriate, a few stools or chairs around the learning area can help overcome this;
- ✓ Make sure your learners can see your demonstrations and – if necessary – repeat the demonstrations for those who may not have been able to see the first time; and,
- ✓ Make sure – during and at the end of the lesson – that you inform your learners of your availability and where and when you will be able to provide any extra help and training assistance that they may require.

## **Motivate Your Learners**

Preparing your trainees also means encouraging and motivating them to learn. As a teacher and a trainer you will need to adopt a warm, approachable, friendly and confident manner. Introduce yourself and welcome your learners to the training. Use questioning to ask them about their previous experiences of the job. Make them the

most important part of the training.

Your approach must be friendly and supportive towards your learners. You must be helpful, positive and motivational and quickly gain their respect and attention.

## **Use Suitable Learning Strategies**

Learning strategies with learners are essentially about learner involvement. If adult learners want to take an active part in the learning processes then the trainer must use learning strategies that create opportunities for this to occur.

### Strategies for Getting the Attention of Your Trainees

**Questioning**        The interest of your trainees can be aroused and maintained during the training through the use of a range of varied questioning techniques by the trainer.

**Show a completed job or product**        Displaying the end product of the lesson that learners are to complete provides adults with motivation. Learners will often forget how quickly you demonstrated the task, but will always remember how well you demonstrated the task.

**Discussion group**        Form learners into small groups to discuss the job, or task, and how they can best perform the job

**Trainer experiences**        Describe a time – in industry or similar – when you were required to develop a similar skill and how you went about doing the job. Remember that you are the subject matter expert and if you can establish your credentials learners will respect and learn more from you.



# LEARNING RESOURCE DESIGN & DEVELOPMENT

In the Australian TVT context, the learning approach and assessment materials are generally developed by training delivery departments, with support from organizational service areas such as Educational Development Service departments.

The main responsibility for the production of learning resources is intended to be with the training provider delivery departments. Each department allocates time to individual trainers to enable them to plan and develop appropriate resources to supplement delivery of training at all levels. This development is also supported by organizational service areas.

In reality, because of the enormous need for training support materials, and the expectation that they are to be of high production quality, there is an increasing trend to purchase the materials from specialist training resource producers. This is especially true of materials such as trainee workbooks, technical audio productions, instructional manuals and technical demonstration equipment.

Most likely there are many textbooks, AV materials, computer-based instructional aids, workshop manuals and other supporting information available relating to the development of a selected training course. Many of these can be sourced either through local technical bookshops, technical libraries or on the internet.

A broad outline of the kinds of learning resources that a trainer/training provider can look for is described below:

- Print**
- ✓ Formally prepared handouts and written notes;
  - ✓ Commercially produced material such as text books, trainee workbooks, pamphlets and workshop manuals;
  - ✓ Study guides that are produced to accompany already published material;
  - ✓ Worksheets to use with other material;
  - ✓ Case studies;
  - ✓ Self-tests, project guides, assignment notes and reading lists;
  - ✓ Maps, charts and posters;

- ✓ Photographs and illustrations; and,
- ✓ Material from newspapers, magazines, journals and periodicals.
- Multi**
- Media**
- ✓ PowerPoint slides;
- ✓ CDs, DVDs and CD ROMs;
- ✓ Internet/intranet; and,
- ✓ Multimedia packages.
- Human**
- Contact**
- ✓ Use of telephone – between trainee and trainer, trainee and trainee, conference calls etc.; and,
- ✓ Use of computer – computer audio visual conferencing, chat groups and e-mail.
- Practical**
- Work**
- ✓ Use of real materials and equipment, for example workshop and manufacturers' models, official forms, specimens and kits;
- ✓ Use of the trainees' own local environment – for example observations, interviews, collection of data; and,
- ✓ Work-based assignments.

It is often difficult, however, to access this material quickly and there may be other problems with its use (too bulky, cannot be released from the source, too expensive etc).

Sometimes equipment may be installed into the college or institute which may not have any supporting training materials with it or, if materials do come with the new equipment, they may not be suitable for use in a training situation.

Many of these problems can be overcome if the training provider develops their own learning resources. Some of the advantages in developing purpose-specific learning resources are:

- ✓ It is possible to make the learning material simpler for trainees to understand by directing it at their language and skill level (some books and publications are very technical and may not suit the level of training being provided);
- ✓ The trainers' own materials will always "work" better for them in the training situation;
- ✓ Trainers can add their own sketches, diagrams, pictures and graphs;
- ✓ Specific activities or self-help quiz questions can be included; and,
- ✓ Providing one's own materials indicates to the learners that the trainer is trying to make your training as personally effective and professional as possible.

In this section, the 2 main kinds of resources to be discussed are handouts and trainee workbooks. These are the learning resources that are most commonly used in CBT, likely to be of greatest value and relatively easy to develop and produce.

## **Producing Session Handouts**

A handout is often a printed summary of the lesson, varying in size from one to any number of pages. A hand-out can contain a range of information including:

- ✓ Step-by-step procedures on how to perform the job or task;
- ✓ The names of books, videos, or other information on the topic and where this is located;
- ✓ Labeled sketches on the topic to provide graphic information;
- ✓ Explanations of technical terms that are used;
- ✓ Safety warnings;
- ✓ Special instructions for workshop use - what tools are available, where they are stored, what materials are required and where these materials are located;
- ✓ Assignments, activities and exercises for learners to undertake;
- ✓ Photographs (some special work required here) of the equipment, the operation, or other techniques;
- ✓ Photocopies of your overhead transparencies; and,
- ✓ Handouts are cheap, quick to produce and generally not difficult to develop.

### **What to Include on Your Handout**

Your handout should be a support to the training - something for learners to take away and remind them of the procedures and processes of the task.

A basic principle for handouts should be to apply  
the "Kiss Principle" ...

**Keep It Short and Simple**

Some, or all, of the following items are appropriate to include in your handout:

- ✓ The objectives of the training session/program - with associated performance, conditions and standard;
- ✓ Safety considerations;
- ✓ The key points of the lesson - perhaps with some additional information like knacks of the job, tools, etc.;
- ✓ Labeled diagram, graph, etc.;
- ✓ Step-by-step checklist of job or task procedures;
- ✓ Where further information or assistance, is available; and,
- ✓ Learner assignments, activities, tests.

Before you introduce any pictures or graphs into your handout, make sure that they are relevant to the words and the subject matter, and not covered by copyright. There is no point in having a picture in your handout just for the sake of including some graphics.

### **Techniques for producing a handout**

There is a wide range of techniques available to produce your handout. Some of these are:

- ✓ If possible use a desktop publishing program on a personal computer (MS Word);
- ✓ Cuttings - cartoons, graphics, from newspapers or magazines pasted into your handout;
- ✓ Clip art books or compact disc art; and,
- ✓ Handwritten. Provided your writing is clear and legible, there is no reason why your handouts cannot be handwritten - although there are more "professional looking" methods.

### **Some Ideas for Presenting Your Handout**

It is relatively easy to make an ugly-looking handout - but with just a little thought, some care and attention - the results that you achieve with the handout can be impressive. Your learners will learn more and they will appreciate your extra efforts when you provide better quality training materials.

Here are some ideas and guidelines for good looking handouts.

- ✓ Lots of white space. Never be afraid of white space. If you examine these notes, look at the white space around the pages (the margins), and the open space between the lines of text and the paragraphs. All this space helps make your handout attractive and easier to read and provides space for learners to make notes sketches if they require;
- ✓ Headings and Sub-Headings. Try to make headings and sub-headings present the major ideas. These help learners follow the information logically and quickly allow them find the information required. Material under headings should expand the information of the topic heading;
- ✓ Use stars (\*) or dots or other symbols for lists and to convey major ideas;
- ✓ Illustrations and pictures should be placed near to the text to which they refer;
- ✓ Try not to use too many typefaces or type sizes. Variation is fine, but too many may spoil the look of your handout;
- ✓ Photocopy from a prepared original;
- ✓ Printed from a computer black and white or color printer; and,
- ✓ Printed out, or projected from a computer using a software program such as Microsoft PowerPoint.

## **Producing Trainee Workbooks**

Trainee workbooks are sometimes developed, and produced, by training providers who can be either Government-funded or private technical and vocational training institutes or colleges.

Trainee workbooks (also sometimes called "instructional manuals), when designed well, are an effective integration of explanation, instruction and assessment with major focus on the technical knowledge and skill requirements of each Unit of Competence which are:

- ✓ Elements;
- ✓ Performance Criteria;
- ✓ Range Statement (scope and level); and,
- ✓ Evidence Guide (assessment requirements).

The technical information is set out logically and systematically so that the workbooks can be the primary learning resource in the training process for each Unit of Competence.

Planning for delivery of the Key Competencies in each Unit needs to be considered in tandem with planning for delivery of technical training.

There are no strict guidelines for developing trainee workbooks but it is recommended that, as evident in the trainee workbook samples provided that the approach generally incorporates:

- ✓ Careful analysis of the Units of Competence;
- ✓ Table of contents;
- ✓ Key words used in the workbook and glossary;
- ✓ Brief outline of the key objective and scope of the Unit;
- ✓ Description of the Elements;
- ✓ Assessment expectations; and,
- ✓ Logical and systematic inclusion of technical information, instruction and assessment (both formative and summative).

The larger providers sometimes have designated educational training service divisions that have the capability to provide instructional design skills. Specialist Staff from these divisions work collaboratively with technical trainers obtain appropriate technical and instructional material. In other instances, delivery departments allocate time responsibility to training staff to develop appropriate trainee workbooks.

Increasingly, however, training providers purchase relatively high quality workbooks from production agencies established for the sole purpose of producing TVT learning resources. Although copyright principles and laws have to be adhered to, it is possible to adapt and customize such resources and use them as models for the production of additional, similar resources for application in other training.

For application within TVTO, it is recommended that the sample trainee workbooks supplied for delivery of the Pilot Courses be adapted and customized to provide a suitable model for developing and producing workbooks to support CBT delivery at TVTCs.

NOTE: Trainee Workbooks are only one kind of resource, designed to be used in conjunction with a range of other learning resources. As with all learning resources they must be seen primarily as supplementary to the direct participation of trainers and trainees in the training activity.



# PROCESS STEPS

## OVERVIEW

TVT curriculum is regarded as a documentation of planned learning experiences which enables trainees to gain the knowledge and skills that are prescribed in industry-driven competency standards.

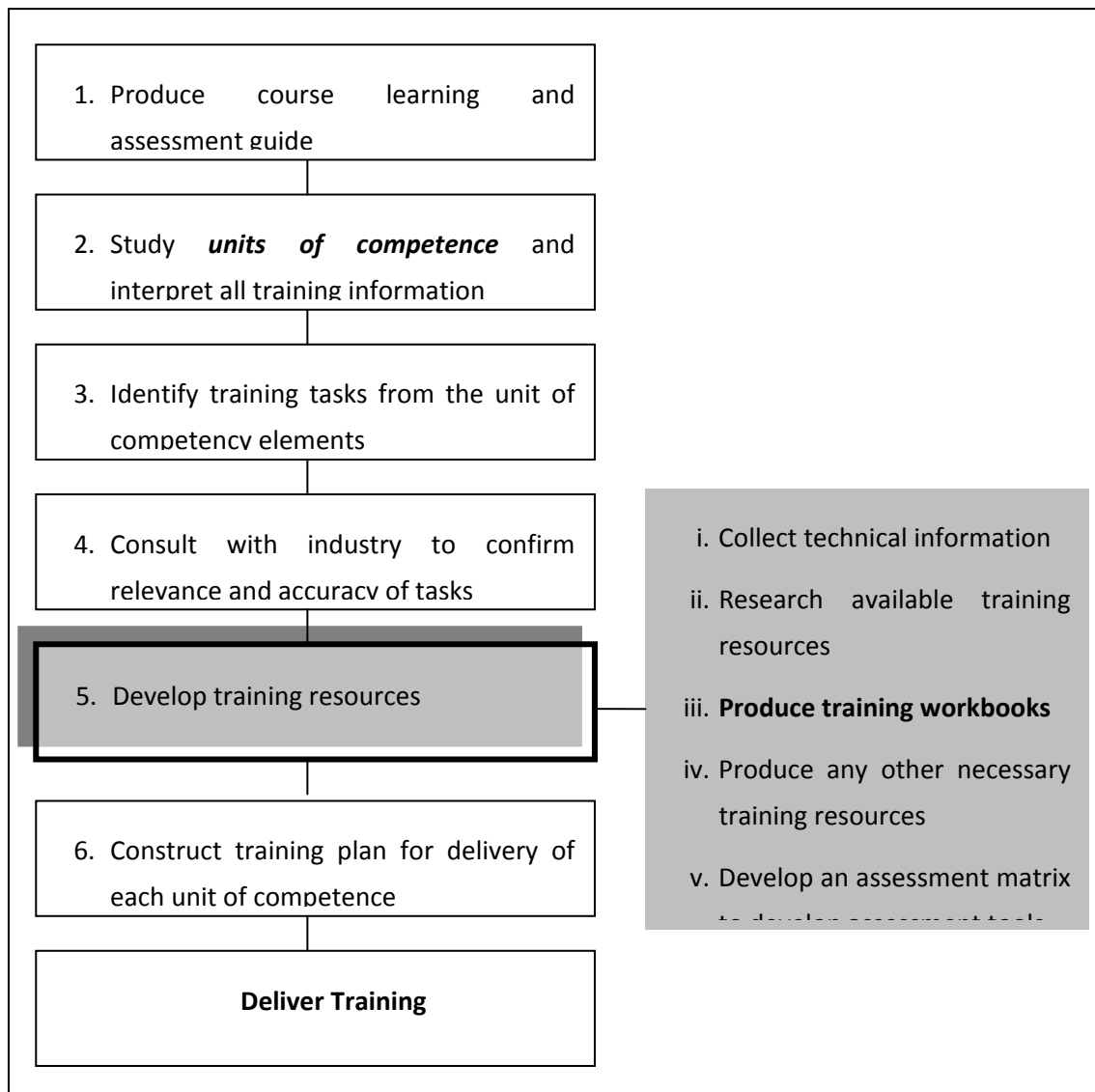
A curriculum provides a "map" or "guide" for the trainer, and generally provides advice on how to interpret and break down each Unit of Competence. It also provides information about the methods and strategies, assessment tools and training resources necessary to train people to the required standards.

This part of the Manual provides a logical flowchart of the process required to develop TVT curriculum using a CBT approach, and outlines each major step in this process. It also provides examples of forms and templates that can be used in the process. These forms and templates can be selected, modified and customized for use as required.

It is important to remember that the process of developing TVT curriculum needs to be systematic and ongoing. A curriculum, however well developed, needs to be reviewed on a regular basis and amended to suit changing needs such as constant changes in technology and job contexts and requirements.



## LOGICAL FLOW CHART OF PROCESS STEPS



## EXPLANATION OF PROCESS STEPS

### STEP1

#### Produce Course Learning and Assessment Guide

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The Learning and Assessment guide is a document that provides a summary of all learning and assessment strategies for the delivery of an entire course.

It is generally prepared by the nominated course coordinator/manager after a close consideration of all of the units of competency that are packaged (clustered) to form the course at the appropriate qualification level.

The coordinator/manager needs to provide as much information that is considered necessary for trainers to understand the general scope and context of the training that they are required to deliver.

The Guide is also generally provided to trainees so that they are aware of:

- ✓ Who their trainers are likely to be and how they can be contacted for assistance and guidance;
- ✓ The number of units they can be expected to complete;
- ✓ The nominal duration of the course and the intended course/unit schedule;
- ✓ Attendance and assessment requirements;
- ✓ Recommended training resources; and,
- ✓ Expectations related to industry attachments and course-relevant excursions.

See

*Appendix 2-1: Form "Learning and assessment Plan"*

### STEP2

#### Study Units of Competence

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The language of Competency Units is written in the passive voice. In order to develop appropriate training for each unit it is very important to correctly interpret the 3 main components of each Unit of Competence (UOC) which are:

- a) Elements and Performance Criteria
- b) Range of Variables
- c) Evidence Guide

The following is a brief guide to interpreting information contained in these sections of the UOC:

#### **a) Elements and Performance Criteria**

The Elements that are described in each Unit are very broad by nature in order to cover a range of activities without being too restrictive. This makes the selection of tasks directly from Elements a difficult process.

For example consider the following Element from the Australian Maintenance Mechanic Certificate II level Course:

#### ***Carry out servicing of braking systems and/or associated components***

The performance criteria written for this element are:

- ✓ Servicing is implemented in accordance with workplace procedures and manufacturer/component supplier specifications; and,
- ✓ Adjustments made during the servicing are in accordance with manufacturer/component supplier specifications.

Before designing the training to suit these performance criteria, it is necessary to decide which tasks constitute "Servicing" and which tasks are involved in the "Adjustments made"? (See Step 3)

#### **b) Range of Variables**

The Range of Variables statement deals with choices that are available within the Unit of Competence. It offers strong indications as to what tasks can be selected and allows

the matching of the unit to a particular training level and industry sector e.g. Level 2 and in the Light Vehicles and 4WDs sector. It indicates not only WHAT tasks and technical information must be included but also under what circumstances they must be performed.

Mandatory requirements which must be included in curriculum design are expressed by the words "*are to include*". Requirements that are not mandatory are expressed by the words "*may include*".

### **(c) Evidence Guide**

Reading the Evidence Guide provides us with a picture of what the "finished product" should look like i.e. how the trainee will be assessed to determine competency. So, in effect we *start from the end*.

We start with the tasks a trainee is expected to perform competently in the workplace and design curriculum around these tasks, based on the various requirements of the given Unit of Competence.

See

*Appendix 2-2 Interpretation of a Unit of Competence*

*Appendix 2-3 Sample Unit of Competence (Inspect & Service Braking Systems)*

## **STEP3**

### **Identify Training Tasks from the Unit of Competence Elements**

Task analysis is the process of breaking down a particular job into observable tasks or steps.

Curriculum designers need to be able to arrive at a specific set of tasks which meet the requirements of the job as well as satisfying the Performance Criteria. Many such tasks initially stem from what is considered "accepted" practice which is based on the instructor's own industry experience.

Each task should form a small module (piece) of training which can be delivered to trainees in a convenient and manageable way. Each module should have a clear

beginning and end.

However validation through industry consultation is always necessary to ensure that tasks are relevant and current.

Since assessment is focused on the successful performance of these tasks, all other curriculum components should be considered in relation to the tasks' performance also. These include the instructional design, development and delivery of underpinning knowledge, task instructions , resources, facilities, etc.; even instructors' having current competence in task performance.

See

*Appendix 2-4 Task Analysis sample*

## **STEP4**

### **Consult with Industry to Confirm Relevance and Currency of Tasks**

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Having analysed the units of competency and identified the training tasks, it is necessary to consult with industry to confirm that the tasks are current.

This step requires having close communication with the industry that is related to the training and assessment that is to take place. Ongoing discussions with industry representatives are a vital part of CBT in order to make sure that each Competency Unit is relevant to current industry needs.

The information collected from such consultations is used in the design of delivery and assessment strategies. For example, tasks that are derived from Unit elements would be based on these discussions and then be validated on a regular basis to ensure that all assessment that is conducted is specifically relevant to the tasks.

The most common forms of industry representation are groups such as Industry Reference Groups (IRG) or training advisory boards. In industries where no such groups exist, it would be necessary to have discussions with suitable representatives from industries in the region.

In the Automotive sector, for example, these discussions can be with workshop

managers/supervisors from large, medium and small dealerships according to the tasks to be confirmed. If it is difficult to discuss the tasks with representatives from all of the 3 different types of enterprises, it would be appropriate to ask the available representative to consider the tasks from the general perspective of the industry.

Perhaps the greatest barrier to successful consultation is communication. Competency Units are written in a language with terminology that can be difficult to understand and intimidating for anybody outside the vocational training area.

Therefore it is necessary to carefully explain terms such as Units of Competence, competency standards, elements, and performance.

Thorough explanations in plain language of terms, concepts and meanings to industry representatives are vital to involving them in this very important component of CBT.

See

*Appendix 2-5 Confirming Selected Training Tasks with Industry*

## **STEP5**

### **Develop Training Resources**

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It is important to develop suitable resources in order to support the delivery of training to achieve competence.

Unlike more traditional approaches to training where training organizations relied on general text books to supplement workshop training, a CBT approach encourages training providers to develop a range of resources.

In the CBT approach, the primary focus is in being able to competently perform job tasks. It is useful therefore for theoretical knowledge and practical skills to be effectively integrated in training delivery. Effectively designed resources can assist in this integration and also assist both trainers and trainees in verifying all relevant job tasks, and providing explicit directions in the kind of assessment that needs to be conducted to confirm competence.

This section describes *five sub-steps* related to training resource development.

<b>Sub STEP5.i</b>	<b>Collect Technical Information</b>
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Once tasks which satisfy Elements have been determined, the design of training tools must focus on presenting sufficient information at the appropriate level which will enable the student to successfully achieve competency. Information must be sufficient for the student to not only know HOW to perform a task but to also understand WHY it is being performed and in what CONTEXT (task may be part of a larger job/occupation).

Information must cover:

- ✓ underpinning knowledge;
- ✓ task procedures;
- ✓ safety issues;
- ✓ training activities;
- ✓ references; and,
- ✓ resources.

<b>Sub STEP5.ii</b>	<b>Research Available Training Resources</b>
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Available resources should cover learning resources as well as whatever is necessary for the trainee to perform the tasks to demonstrate competency.

Learning resources can include a wide range of audio/visual, computerized and literature-based material such as:

- ✓ Text books;
- ✓ Journals, research articles and general publications;
- ✓ Workbooks;
- ✓ PowerPoint presentations;
- ✓ CDs and DVDs; and,
- ✓ Computer-based programs and Internet sites.

Resources can also cover any sort of hardware or software which is used in task

performance such as:

- ✓ General or specialized tools/equipment;
- ✓ Computers; and,
- ✓ Appropriate work environment.

<b>Sub STEP5.iii</b>	<b>Produce Training Workbooks</b>
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The Workbook is a guide for the trainee (and the instructor) to enable him to complete all the learning and assessment activities to achieve competence. It should contain all the necessary learning material, activities, references and assessment criteria to achieve competence in the unit. Final task and knowledge assessment tools should be provided separately.

A typical workbook may contain the following sections.

*Contents Page*

*Introduction*

The introduction should contain:

- ✓ Unit Description;
- ✓ Assessment Criteria – what the trainee must do to be competent.
- ✓ Main References; and,
- ✓ Key Words.

*Safety Considerations*

Description all safety aspects relating to the completion of this unit

*Main Section*

- ✓ containing information such as component identification, system and component operation, servicing procedures, "safety boxes", practical activities;
- ✓ Information summaries;
- ✓ Review questions/ tasks; and,



- ✓ Checkpoints where trainees report to the instructor before continuing.

This may be divided into smaller sections of related material which can be delivered as individual lessons. Separate or related tasks and their underpinning knowledge can be delivered as modules which together make up a complete unit of competency.

#### *Assessment table or Checklist*

This can be used to monitor the trainee's progress through all assessment tasks or exercises for the benefit of the trainee and the instructor. It is also an important record which can be transferred to official institute records.

See

***Appendix 2-6 Workbook Development Guide***

### **Sub STEP5.iv Produce Other Training Resources**

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When Student Workbooks are effectively designed and produced, they are likely to contain much of the necessary explanations, training and assessment guides and references necessary for the training course.

However other items may need to supplement delivery of training for units of competency. These items may include:

- ✓ Handouts for distribution to trainees;
- ✓ Practical task sheets and checklists to provide additional work instructions or to document task progress;
- ✓ 3rd Party verification forms which record/endorse the repetition of tasks in the workplace. This direct connection with industry underpins the entire notion of Competency and of producing work-ready trainees. This is also a means of keeping a communication channel with employers open throughout the training cycle; and,
- ✓ Physical equipment including models, necessary to understand and perform tasks. Training institutions must provide resources which replicate/simulate workplace conditions under which tasks are performed so that competence is assessed as

realistically as possible.

- ✓ Suitable facilities to accommodate all necessary resources which are vital to fair and equitable task performance and assessment.

See

*Appendix 2-7 Examples of Handouts*

*Appendix 2-8 Sample Practical Task Templates*

*Appendix 2-9 Example of 3<sup>rd</sup> Party Verification Form*

#### **Sub STEP5.v**

#### **Construct Assessment Matrix**

An assessment matrix identifies which assessment tools are used for each Performance Criteria of each Element. While this is essentially a quality management aspect, the matrix can be also be a convenient checklist to ensure all Performance Criteria have been assessed.

The matrix lists all Elements and Performance Criteria and matches them to the selected assessment methods. Methods may include written responses (theory test), assessment tasks, 3rd party verification.

It is also essential that Critical Aspects of Evidence be included in the matrix to indicate where and how these have been assessed. Some aspects may be assessed separately but most will be included in other Performance Criteria. For example, Safety activities may have a separate assessment task or quiz but may also be included in the performance of many other tasks.

See

*Appendix 2-10 Assessment Matrix for Unit of Competence*

*Appendix 2-11 Assessment Guide*

#### **Sub STEP5.vi**

#### **Develop Assessment Tools**

Assessment is the key feature of a CBT approach. Unlike more traditional approaches

to technical and vocational training which focus on course content and the use of text-based exams, the CBT approach requires assessment to be directly relevant to the competencies that trainees are required to achieve.

As outlined in the previous section, an assessment matrix is designed to enable the trainer to make precise judgments about what type of assessment needs to be used for each task within a competency unit. The next step is to design the appropriate "assessment tools".

Assessment tools can be briefly described as:

- ✓ Instruments for gathering evidence based on the selected assessment methods; and,
- ✓ Procedures to be followed when conducting assessment.

They need to be designed carefully to ensure that:

- ✓ Assessments are conducted according to the principles of assessment (see Explanatory Text);
- ✓ The collected evidence meets the rules of evidence (see Explanatory Text);
- ✓ Organizational requirements are met; and,
- ✓ The needs of the trainees are taken into account.

The following are commonly used assessment tools:

- ✓ Labelling diagram/model for component identification. These can be used to assess theory and practice. Much of this type of testing can now be created for use with computers if trainees had ready access to them;
- ✓ Multiple choice written tests – these have the advantages of being quick to mark and require virtually no writing on the part of the student. They are used to mainly for theory;
- ✓ Written tests – Used to assess knowledge. Correction is time consuming for trainers but these types of tests enable trainees to comprehensively express knowledge gained. These test should be accompanied by a marking guide; and,
- ✓ Checklists are often used in assessing practical tasks and are best derived from the standards of performance objectives. This format of task objective uses very precise standards to make specific what is described in very broad terms in the Elements of the competency unit.

See

*Appendix 2-12 Assessment Tool Samples for Labelling Diagrams, Multiple Choice and Written Tests*

*Appendix 2-13 Sample Assessment Checklist 1*

*Appendix 2-14 Sample Assessment Checklist 2*

## **STEP6**

### **Construct Training Plan for each Unit of Competence (UOC)**

Whereas the Learning and Assessment Plan, explained in Step 1, is a general guide for the delivery of all UOCs that comprise a certificated course, the Training Plan focuses on the delivery of each individual unit.

The Training Plan is useful for individual trainers to prepare for the delivery of training sessions that they will deliver to trainees in the appropriate training environment. As illustrated in Form 2.6.i, each element of a UOC needs to be broken down into individual training sessions.

It is important for each individual trainer, with support from coordinators and colleagues, to then plan the delivery of each session. In planning for the sessions, the trainer needs to consider the following:

#### **Planning**

Session structure including session plan  
Choice of assessment tools  
Choice of training resources  
Monitoring attendance

#### **Delivery**

Choice of motivating strategies  
Use of questioning techniques  
Allowing for individual trainee differences  
Use of voice and presentation style

See

*Appendix 2-15: Training Plan Template 1*

*Appendix 2-16: Training Plan Template 2*

*Appendix 2-17: UOC Delivery Training Plan (Sample 1)*

*Appendix 2-18: UOC Delivery Training Plan (Sample 2)*

*Appendix 2-19: Training Session Plan Template*

# APPENDICES

## Appendix 2-1: Form "Learning and Assessment Plan"

Course       Competency

Please adapt this form to suit the planned course and clustered competency units

<b>Course Code</b>	
<b>Course Title</b>	

### 1. Contact Details

The trainer details are needed for alignment to staff qualifications to teach the clustered competencies. If the outline is given to trainees, they should know who the coordinator and administrative officers are and where people can be found.

	Name	Telephone	Email
<b>Teacher</b>			
<b>Course Coordinator</b>			
<b>Administrative Officer</b>			
<b>Department Office</b>	Room      ,      Campus		
<b>Course Information</b>			

### 2. Course Delivery Overview

The overview might also include such items as practical placement, self-paced study, etc. Adapt this section as needed by changing the headers and/or adding new rows.

Session Time	External Activities	Student Project	Total Scheduled Hours

### 3. Unit of Competence

This section should describe what units of competency have been packaged together to form this subject or cluster? Each course comprises a number of units.

<b>Title of Units</b>	
<b>Unit Scheduled Hours</b>	
<b>Unit Type</b>	
<b>Pre/Co Requisites</b>	
<b>Description</b>	
<b>Elements</b>	<b>1</b>
	2
	3
	4

### 4. Assessment Details

<b>Assessment Task</b>	<b>Unit of Competence - Elements</b>
For example:	1.3, 1.2, 1.3
Underpinning Knowledge (How will this be assessed?)	
Employability skills (indicate assessment and recording)	
<b>Flexibility</b>	
<b>Moderation</b>	

### 5. Learning Resources

This could be an endless list. If the LAP is for teachers, include where common resources are stored and their availability. If for students, indicate how the resources might be obtained. This is meant to refer to key resources, not all resources as customization to individual learners will need to take place.

<b>Workbooks</b>	
<b>Textbooks and Other Resources</b>	
<b>Specialist facilities</b>	
<b>Equipment</b>	
<b>Other</b>	





## **IMPORTANT INFORMATION FOR TRAINEES & TRAINERS**

Use the following sections with information for staff or students or both. Add and subtract as you need.

### *Attendance and participation*

Unit delivery and assessment is subject to change. Attend classes regularly to keep up to date with any alterations or changes.

Competency based training requires the student to be in attendance in order for assessment to be undertaken. If you miss a class you will need to make suitable arrangement for re-assessment. Formal examinations will not be repeated unless special circumstances apply.

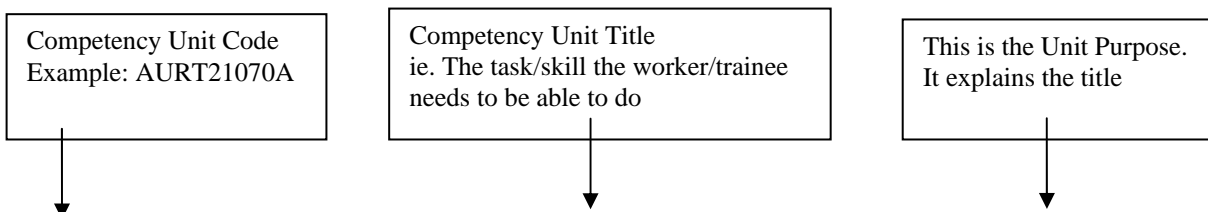
### *Assessment requirements*

### *Requirements for work submitted for assessment*

### *Industry attachment information*

### *Excursion information*

## Appendix 2-2: Interpretation of a Unit of Competence



<b><u>AURT21070A</u></b> <b><u>Unit Descriptor</u></b>	<b><u>Inspect and Service Brake Systems</u></b> <p>The unit includes identification and confirmation of work requirement, preparation for work, conduct of brake system wear analysis, servicing of braking systems and completion of work finalization processes, including clean-up and documentation.</p> <p>The unit covers the competence required to inspect and service of braking systems and/or associated components, including pneumatic over hydraulic, air, hand and parking brake systems in an automotive retail, service and/or repair context.</p>
<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>
<b>Elements define essential outcomes of a Unit of Competence</b>	Performance Criteria specify the level of performance required to demonstrate achievement of the Element
<b>1. Prepare to undertake braking system inspection</b>	1.1 Nature and scope of work requirements are identified and confirmed  1.2 OH&S requirements, including individual State/Territory regulatory requirements and personal protection needs are observed throughout the work  1.3 Procedures and information such as workshop manuals and specifications, and tooling required, are sourced  1.4 Methods appropriate to the circumstances are selected and prepared in accordance with standard operating procedures  1.3 Procedures and information such as workshop manuals and specifications, and tooling required, are sourced  1.4 Methods appropriate to the circumstances are selected and prepared in accordance with standard operating procedures

Elements of Competency are the parts of the required task/skill

These Performance Criteria describe how the task/skill is to be performed and are the basis for assessment

Each Unit of Competence provides further details on the following:

- The Range of Variables - which identify the range of contexts, sources of information and resources required, methods and any special requirements
- The Evidence Guide – which provides the context and critical aspects for assessment, and describes the underpinning knowledge and practical demonstration requirements
- Identification of Key Competencies is contained within the Unit of Competence

## Appendix 2-3: Sample Unit of Competence (Inspect & Service Braking Systems)

### Unit of Competence

#### AURT210170A: Inspect and Service Braking Systems

### Description

This unit covers the competence required to inspect and service of braking systems and/or associated components, including pneumatic over hydraulic, air, hand and parking brake systems in an automotive retail, service and/or repair context.

The unit includes identification and confirmation of work requirement, preparation for work, conduct of brake system wear analysis, servicing of braking systems and completion of work finalization processes, including clean-up and documentation.

### Elements of Competency and Performance Criteria

National Code	Element name
1. Prepare to undertake braking system inspection	<p>1.1 Nature and scope of work requirements are identified and confirmed</p> <p>1.2 OH&amp;S requirements, including individual State/Territory regulatory requirements and personal protection needs are observed throughout the work</p> <p>1.3 Procedures and information such as workshop manuals and specifications, and tooling required, are sourced</p> <p>1.4 Methods appropriate to the circumstances are selected and prepared in accordance with standard operating procedures</p> <p>1.5 Resources required for inspection of braking systems are sourced and support equipment is identified and prepared</p> <p>1.6 Warnings in relation to working with braking systems are observed</p>
2. Conduct braking system wear analysis	<p>2.1 Braking system analysis is implemented in accordance with road safety legislation, workplace procedures and manufacturer/component supplier specifications</p> <p>2.2 Brake wear measurement results are compared with manufacturer/component supplier specifications to indicate compliance or non-compliance</p> <p>2.3 Results are documented with evidence and supporting information and recommendation(s) made</p> <p>2.4 Report is processed in accordance with workplace procedures</p>

3. Prepare to service braking system and/or associated components	<p>3.1 OH&amp;S requirements, including individual State/Territory regulatory requirements and personal protection needs are observed throughout the work</p> <p>3.2 Procedures and information required are identified and sourced</p> <p>3.3 Resources required for servicing braking systems are identified and support equipment is identified and prepared</p>
4. Carry out servicing of braking systems and/or associated components	<p>4.1 Servicing is implemented in accordance with workplace procedures and manufacturer/component supplier specifications</p> <p>4.2 Adjustments made during the servicing are in accordance with manufacturer/component supplier specifications</p>
5. Prepare equipment for use or storage	<p>5.1 Servicing schedule documentation is completed</p> <p>5.2 Final inspection is made to ensure protective features are in place</p> <p>5.3 Final inspection is made to ensure work is to workplace expectations</p> <p>5.4 Equipment is cleaned for use or storage to workplace expectations</p> <p>5.5 Job card is processed in accordance with workplace procedures</p>

## **RANGE OF VARIABLES**

### **UNIT SCOPE**

- ✓ This unit of competence refers to braking systems associated with automotive retail, service and repair and should be contextualized to the level of qualification to which it is being applied:
- ✓ light vehicle, heavy vehicle, motorcycle or trailer or outdoor power equipment
- ✓ Types of braking systems may include:
  - hydraulic;
  - mechanical;
  - pneumatic;
- ✓ System components may include:
  - disc pads;
  - master cylinders;
  - brake shoes;
  - brake calipers;
  - brake hoses;
  - brake actuators;
  - mechanical devices; and,

- valves.
- ✓ Methods are to include:
  - visual, aural and functional assessments (including damage, corrosion, fluid leaks, wear); and,
  - measurements of pedal travel, free-play, disc runout, disc thickness, drum wear and pad/lining thickness.

### **UNIT CONTEXT**

- ✓ Work requires individuals to demonstrate judgement and problem-solving skills in managing own work activities and contributing to a productive team environment within the scope of this unit. This includes an understanding of the level of work to be performed; and,
- ✓ Work is carried out in accordance with award provisions.

### **OCCUPATIONAL HEALTH & SAFETY (OH & S)**

- ✓ OH&S requirements are to be in accordance with legislation/regulations/codes of practice and enterprise safety policies and procedures. This may include protective clothing and equipment, use of tooling and equipment, workplace environment and safety, handling of material, use of fire fighting equipment, enterprise first aid, hazard control and hazardous materials and substances;
- ✓ Personal protective equipment is to include that prescribed under legislation/regulations/codes of practice and workplace policies and practices Safe operating procedures are to include, but are not limited to the conduct of operational risk assessment and treatments associated with vehicular movement, hazardous substances, machinery movement and operation, manual lifting and shifting, working in proximity to others and site visitors;
- ✓ Emergency procedures related to this unit are to include, but are not limited to emergency shutdown and stopping of equipment, operating safely in the event of fires, enterprise; and,
- ✓ first aid requirements and site evacuation.

### **ENVIRONMENTAL REQUIREMENTS**

- ✓ Environmental requirements are to include but are not limited to waste management, noise, dust and clean-up management

### **QUALITY REQUIREMENTS**

- ✓ Quality requirements are to include, but are not limited to regulations, including Australian Standards, internal company quality policy and standards and

enterprise operations and procedures

### **TOOLING**

- ✓ Tooling and equipment may include hand tooling, gauges (including dial, verniers and micrometers), bleeding and brake testing devices, dust extraction equipment and grease guns

### **MATERIALS**

- ✓ Materials may include lubricants, fluids, minor spare parts and cleaning materials

### **COMMUNICATIONS**

- ✓ Communications are to include, but are not limited to verbal and visual instructions and fault reporting and may include site specific instructions, written instructions, plans or instructions related to job/task, telephones and pagers

### **INFORMATION**

- ✓ Information sources may include, but are not limited to verbal or written and graphical instructions, signage, work schedules/plans/specifications, work bulletins, memos;
- ✓ material safety data sheets, diagrams or sketches;
- ✓ Safe work procedures related to the inspection and servicing of braking systems;
- ✓ Regulatory/legislative requirements pertaining to the;
- ✓ automotive industry, including Australian Design Rules;
- ✓ Engineer's design specifications and instructions; and,
- ✓ Organization work specifications and requirements.

### **EVIDENCE GUIDE**

It is essential that competence in this unit signifies ability to transfer competence to changing circumstances and to respond to unusual circumstances in the critical aspects of:

- ✓ observing safety procedures and requirements;
- ✓ communicating effectively with others involved in or affected by the work;
- ✓ selecting methods and techniques appropriate to the circumstances;

- ✓ completing preparatory activity in a systematic manner conducting the inspection in accordance with workplace and manufacturer/component supplier requirements;
- ✓ accurately interpreting wear analysis results completing service of braking systems in accordance with workplace and manufacturer/component supplier requirements;
- ✓ completing service of braking systems and associated components within workplace timeframes; and,
- ✓ equipment is presented to customer in compliance with workplace requirements.

### **RELATIONSHIP TO OTHER UNITS**

Competence in this unit may be assessed in conjunction with other functional units which together form part of the holistic work role

### **UNDERPINNING KNOWLEDGE**

- ✓ A working knowledge of:
  - OH&S and environmental regulations/requirements, equipment, material and personal safety requirements;
  - dangers of working with braking systems operating principles of braking systems, components and their relationship to each other;
  - types and layout of service/repair manuals (hard copy and electronic);
  - analysis procedures;
  - servicing procedures;
  - enterprise quality procedures; and,
  - work organization and planning processes.

### **SPECIFIC KEY COMPETENCIES AND UNDEPINNING & EMPLOYABILITY SKILLS REQUIRED TO ACHIEVE THE PERFORMANCE CRITERIA**

Level 1 – relates to working effectively within set conditions and processes,

Level 2 – relates to management or facilitation of conditions or processes

Level 3 – relates to design, development and evaluation of conditions or process.

How will the candidate apply the following key competency in this unit? The candidate

will need to:

**All Key Competencies at Level 1**

Collect, analyze and organize information	<ul style="list-style-type: none"> <li>➤ Apply research and interpretive skills sufficient to locate, interpret and apply manufacturer/component supplier procedures, workplace policies and procedures</li> <li>➤ Apply analytical skills required for identification and analysis of technical information</li> </ul>
Communicate ideas and information	<ul style="list-style-type: none"> <li>➤ Apply plain English literacy and communication skills in relation to dealing with customers and team members</li> <li>➤ Apply questioning and active listening skills for example when obtaining information from customers</li> <li>➤ Apply oral communication skills sufficient to convey information and concepts to customers</li> </ul>
Plan and organize activities	<ul style="list-style-type: none"> <li>➤ Apply planning and organizing skills to own work activities, including making good use of time and resources, sorting out priorities and monitoring one's own performance</li> </ul>
Work with others and in a team	<ul style="list-style-type: none"> <li>➤ Interact effectively with other persons both on a one-to-one basis and in groups, including understanding and responding to the needs of a customer and working effectively as a member of a team to achieve a shared goal</li> </ul>
Solve problems	<ul style="list-style-type: none"> <li>➤ Establish safe and effective work processes which anticipate and/or resolve problems and downtime, to systematically develop solutions to avoid or minimize reworking and avoid wastage</li> </ul>
Use mathematical ideas and techniques	<ul style="list-style-type: none"> <li>➤ Use mathematical ideas and techniques to correctly calculate time, assess tolerances, apply accurate measurements, calculate material requirements and establish quality checks</li> </ul>
Use technology	<ul style="list-style-type: none"> <li>➤ Use workplace technology related to the inspection and servicing of braking systems, including the use of servicing tooling and equipment, measuring equipment, computerized technology and communication devices and the reporting/documenting of results</li> </ul>

**Context of Assessment**

- ✓ Application of competence is to be assessed in the workplace or simulated worksite
- ✓ Assessment is to occur using standard and authorized work practices, safety requirements and environmental constraints
- ✓ Assessment is to comply with regulatory requirements, including Australian Standards



## **METHOD OF ASSESSMENT**

- ✓ Assessment must satisfy the endorsed assessment guidelines of the automotive industry's RS&R Training Package
- ✓ Assessment methods must confirm consistency and accuracy of performance together with application of underpinning knowledge
- ✓ Assessment must be by direct observation of tasks, with questioning on underpinning knowledge and it must also reinforce the integration of key competencies
- ✓ Assessment may be applied under project related conditions and require evidence of process
- ✓ Assessment must confirm a reasonable inference that competence is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances
- ✓ It is preferable that assessment reflects a process rather than an event and occurs over a period of time to cover varying quality circumstances. Evidence of performance may be provided by customers, team leaders/members or other persons subject to agreed authentication arrangements

## **SPECIFIC RESOURCE REQUIREMENTS FOR THIS UNIT**

The following resources should be made available:

- ✓ workplace location or simulated workplace
- ✓ material relevant to the inspection and servicing of braking systems
- ✓ equipment, hand and power tooling appropriate to the inspection and servicing of braking systems
- ✓ activities covering mandatory task requirements
- ✓ specifications and work instructions

## Appendix 2-4: Task Analysis Sample

<b>Task: Adjust Drum Brakes</b>	
<b>Steps</b>	<b>Sub-steps</b>
Raise rear of vehicle	➤ Wheels are free to rotate
Locate adjustment opening	➤ Examine brake assembly for inspection/adjustment opening ➤ Remove Wheel/Tyre assembly
Tighten shoe contact against drum	➤ Locate adjusting wheel ➤ Determine direction to tighten shoes ➤ Check drum is tightening by rotating
Release shoe contact	➤ Release self-adjusting pawl ➤ Turn adjuster in opposite direction
Check shoe drag on drum	➤ Rotate drum ➤ Feel the amount of drag to slow drum down
Compare adjustment to other side drum	➤ Adjust drums to have equal drag
Lower vehicle to ground	➤ Refit wheel/tyre assemblies ➤ Ensure vehicle is free of lifting equipment or safety stands

## Appendix 2-5: Confirming Selected Training Tasks with Industry

Unit: Inspect and Service Braking Systems

Element	Tasks	Importance to Business Operation Rating Scale from Irrelevant – 1 to Very important – 5	How often is task performed Rating Scale from Never – 1 to Constantly - 5	Comments
1. Prepare to undertake braking system inspection	Source manufacturer's specifications and procedures			
	Raise vehicle			
	Access brake components for inspection			
2. Conduct braking system wear analysis	Inspect pad/lining wear			
	Report on condition of components			
	Check for leaks, damage and other faults			
	Complete job card			
3. Prepare to service braking system and/or associated components	Source manufacturer's specifications and procedures			
	Select appropriate tools and equipment			
	Place guard covers and other protection against fluid spillage			
4. Carry out servicing of braking systems and/or associated components	Bleed brakes and flush system			
	Adjust drum brakes			
	Adjust handbrake			
	Replace brake pads			
	Remove and replace brake shoes			
	Lubricate calliper slides			
	Clean brake system components			
5. Prepare equipment for use or storage	Clean up all fluid spillage			
	Safely clean/remove brake dust			
	Test brake pedal operation/feel			

## Appendix 2-6: Workbook Development Guide

**Contents page** –a list of all sections contained in the workbook. This is usually made up last, when all page numbers and sections have been finalized

**Table/matrix listing all** sections that need to be completed to serve as a record of completion and results for Theory activities, Theory assessment, Practical tasks, Practical assessment, Workplace assessment and Final Competency.

### INTRODUCTION

Provides a brief description of what the unit is about. The main elements of the unit (usually not Preparation to) describe this and can be listed in simple language as dot points. A few sentences outlining the importance of the unit can also be included.

#### Assessment of Competency

Tells the student what he must do to be deemed competent in this unit. For example, he must complete theory based assessment and also be assessed on practical tasks. He may also have to show competency more than once to satisfy the competency standards.

#### Assessment Criteria

To achieve competency the student must:

Perform . . . (practical tasks) without damage to other components/systems.

Inspect cooling systems and analyze results

Carry out service to cooling systems

so that all the Performance Criteria are met. Here, the Elements and their Performance Criteria can be stated.

#### References

The main references for this unit are:

- (Text Book)
- (Workshop Manual)

- (Powerpoint)

However, other references may be used throughout this workbook.

### **Key Words**

It is recommended that the student learn the correct spelling and meaning of the following key words:

## **SAFETY**

This section can include some OH&S information relating to this particular unit and can sometimes be taken directly from the unit dealing with workplace safety. It is important that this topic be dealt with at the beginning of the unit to ensure the student is fully aware of the dangers and precautions associated with the tasks within this unit.

Further reinforcement of specific safety items can also be added throughout the unit in the form of "Safety boxes" placed with each task.

## **MAIN SECTION**

The main body of the workbook will contain technical information covering theory to support and the procedures to perform practical tasks. As a Level 2 unit this information should aim to include:

- the function and purpose of components;
- system and some component operation;
- minor adjustments; and,
- safety issues.

One arrangement of this information is to firstly cover all theory topics of the underpinning knowledge required for the trainee to understand and appreciate the practical tasks he is to perform. This is then followed by a theory test which should include knowledge, safety and any necessary preparation prior to starting the practical tasks. It should be remembered that the underpinning knowledge must only cover what is necessary for the trainee to understand and successfully complete the practical tasks. The question here is what and how much information should be included in the workbook.

This decision is based on determining the amount, complexity and difficulty of knowledge the trainee MUST acquire to achieve competency in this unit. The extent of this content must also be balanced against any TIME restrictions imposed by the training system. The only way to determine the MUST-know information however, is through industry consultation. Motor mechanic trainees tend to be kinaesthetic learners who have a low preference for reading; so information should be presented:

- in small chunks which can be easily learnt;
- in a logical sequence; and,
- using Audio Visual media wherever possible e.g. pictures, diagrams, photos, videos etc.

What information is included in the unit should be based on what tasks the trainee needs to be competent in. The only way to determine this is through industry consultation. Industry, through bodies such as the IRG, must specify what tasks need to be performed in a work situation within the scope of this unit.

Another arrangement of this information may be to divide the contents into segments which can be delivered individually but all must be delivered to complete the unit. Each segment may contain some technical information with review questions followed by a practical task. Safety boxes and summaries are also included. This sort of packaging enables more convenient assessment

### **Information Summary**

Each section of information should be followed by a brief summary consisting of a set of sentences – one for each main point of that section.

### **Review Questions**

These questions are usually drawn from the preceding section of information. Their purpose is to make the trainee research the response from the information he has just read. This means the trainee interacts with the information a second time and so reinforces the learning. This is not a form of assessment. However, some of these questions can be used as part of a separate assessment quiz.

### **Workbook Headings**

– see notes on Workbook Components

## COVER

Student Details: Name, (Number), Group/Class, etc.

## CONTENTS

### INTRODUCTION

Competency Assessment

References

Key Words

### SAFETY

ACTIVITIES (Technical information)

Review Questions

Practical Tasks (instructions checklists and review questions)

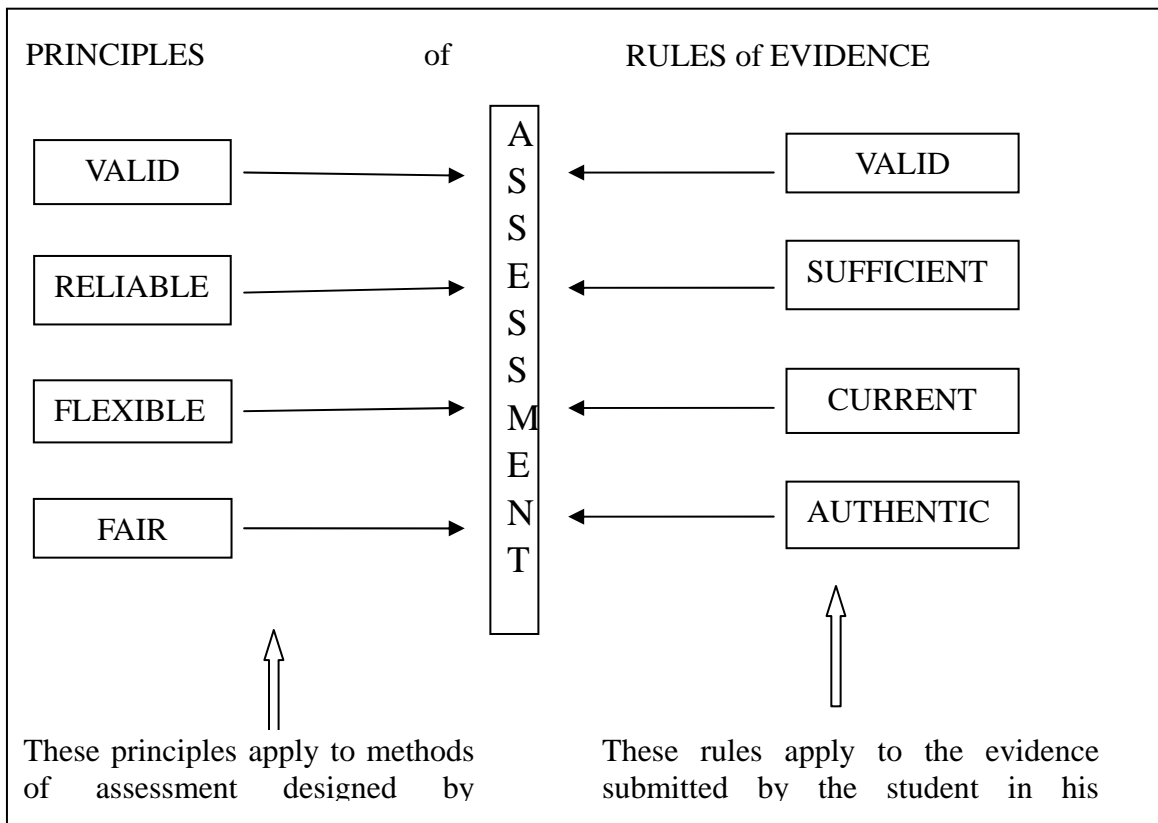
ASSESSMENT TABLE or CHECKLIST

## ASSESSMENT

Assessment is the process of collecting evidence and making judgements on whether competency has been achieved. This process confirms that a trainee can perform to the standard expected in the workplace. Students are assessed against units of competence not compared to the results of other students.

To ensure all the competency requirements are assessed, you need to examine the elements, performance criteria, range statement and evidence guide.

Assessment set in the CBT model moves away from the traditional method of using a controlled test situation supervised administered by an examiner to minimize the chance of cheating. This leaves other forms of assessment open to claims of subjectivity. Therefore assessment in CBT must be designed and implemented to suit a clearly stated set of rules and principles.



## FEEDBACK

Feedback about assessment from an instructor to a student is a very important element in the assessment process. A student must understand why a particular response is incorrect and why another is correct. Such feedback makes the assessment tool a learning opportunity.

## ASSESSMENT TOOLS

### Written Test

Multiple choice tests have the advantages of being quick to mark and require virtually no writing on the part of the student but do little to develop writing skills.

Questions requiring open written answers promote written communication but must be accompanied by a marking guide. This enables different instructors to produce more even marking using the set criteria in the guide. Criteria usually consist of critical points which must be mentioned in the response.



Closed questions are more commonly used in determining the serviceability/usefulness of say a component. Such questions should be only in quizzes or tests for True/False or Agree/Disagree responses.

**Other Methods of assessment**

Checklists are often used in assessing practical tasks and are best derived from the standards of performance objectives. This format of task objective uses very stringent standards to make specific what is described in very broad terms in the Elements of the competency unit.

For example:           Element - Inspect Cooling system and analyse results

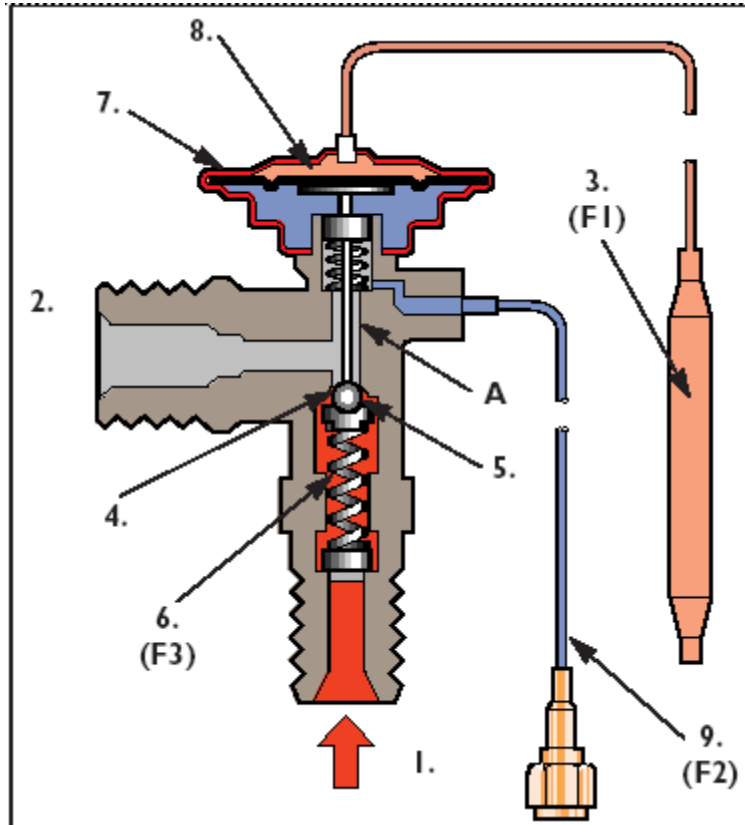
Components are inspected using visual, aural and kinesthetic (touching) means so that all leaks and faults are detected and reported according to manufacturers' procedures and specifications.

A typical checklist may look like this:

COMPONENT	SERVICEABILITY	COMMENT
Instructor's comments		

## Appendix 2-7: Example of a Handout

### Externally sensed TX Air Conditioner Valve .



1. From filter dryer
2. To evaporator inlet
3. Capillary tube
4. Metering orifice
5. Ball valve
6. Spring
7. Diaphragm
8. Refrigerant
9. Pressure compensating tube

## Appendix 2-8: Sample Practical Task Templates

UNIT \_\_\_\_\_

STUDENT \_\_\_\_\_

TASK	PERFORMANCE STANDARDS	PERFORMANCE CRITERIA	ASSESSMENT METHOD *	RESULT Pass/Fail	DATE	INSTRUCTOR
Perform task ...using... so that...	<ul style="list-style-type: none"> <li>➤ Task is completed</li> <li>➤ Components are not damaged</li> <li>➤ Safety requirements are met</li> </ul>	1.1, 1.2, 1.6,2.1, 2.2, 3.1	1, 2, 3, 4 or 5	Pass	06/07/2010	
* Assessment Methods: <b>1. Demonstration</b> <b>2. Question and Answer</b> <b>3. Observation</b> <b>4. Written Response</b>						

(UNIT NAME & NUMBER)	RESULT	DATE	INSTRUCTOR
<b>UNIT COMPLETION</b>			



R & R brake pads.					
R & R brake callipers.					
Work and documentation is completed to industry standards					
Work and documentation is completed to industry standards					
Work is completed within industry timelines					
<b>Office use only</b>					
<b>Comments</b>	Record card entered		Student Sign Off	Swinburne Sign Off	

## Appendix 2-10: Assessment Matrix for Unit of Competence

<b>National ID</b>	AUR30405
<b>Qualification</b>	Certificate III in Automotive Mechanical Technology
<b>Competency</b>	Inspect and service brake systems
<b>National Code</b>	AURT210170A
<b>Description</b>	This unit covers the competence required to inspect and service of braking systems and/or associated components, including pneumatic over hydraulic, air, hand and parking brake systems in an automotive retail, service and/or repair context. The unit includes identification and confirmation of work requirement, preparation for work, conduct of brake system wear analysis, servicing of braking systems and completion of work finalization processes, including clean-up and documentation.

ELEMENTS /PERFORMANCE CRITERIA	Assessment methods/task See Assessment Guide below for description		
	KNOWLEDGE TEST	ASSESSMENT TASK	3rd PARTY
<b>1. Prepare to undertake braking system inspection</b>			
1.1 Nature and scope of work requirements are identified and confirmed			
1.2 OH&S requirements, including individual State/Territory regulatory requirements and personal protection needs are observed throughout the work			
1.3 Procedures and information such as workshop manuals and specifications, and tooling required, are sourced			
1.4 Methods appropriate to the circumstances are selected and prepared in accordance with standard operating procedures			
1.5 Resources required for inspection of braking systems are sourced and support equipment is identified and prepared			
1.6 Warnings in relation to working with braking systems are observed			
<b>2. Conduct braking system wear analysis</b>			
2.1 Braking system analysis is implemented in accordance with road safety legislation, workplace procedures and manufacturer/component supplier specifications			
2.2 Brake wear measurement results are compared with manufacturer/component supplier specifications to indicate compliance or non-compliance			
2.3 Results are documented with evidence and supporting information and recommendation(s) made			
2.4 Report is processed in accordance with workplace procedures			
<b>3. Prepare to service braking system and/or associated components</b>			

ELEMENTS /PERFORMANCE CRITERIA	Assessment methods/task See Assessment Guide below for description		
	KNOWLEDGE TEST	ASSESSMENT TASK	3rd PARTY
3.1 OH&S requirements, including individual State/Territory regulatory requirements and personal protection needs are observed throughout the work			
3.2 Procedures and information required are identified and sourced			
3.3 Resources required for servicing braking systems are identified and support equipment is identified and prepared			
<b>4. Carry out servicing of braking systems and/or associated components</b>			
4.1 Servicing is implemented in accordance with workplace procedures and manufacturer/component supplier specifications			
4.2 Adjustments made during the servicing are in accordance with manufacturer/component supplier specifications			
<b>5. Prepare equipment for use or storage</b>			
5.1 Servicing schedule documentation is completed			
5.2 Final inspection is made to ensure protective features are in place			
5.3 Final inspection is made to ensure work is to workplace expectations			
5.4 Equipment is cleaned for use or storage to workplace expectations			
5.5 Job card is processed in accordance with workplace procedures			
<b>UNDERPINNING KNOWLEDGE</b>			
➤ OH&S and environmental regulations/requirements, equipment, material and personal safety requirements			
➤ dangers of working with braking systems			
➤ operating principles of braking systems, components and their relationship to each other			
➤ types and layout of service/repair manuals (hard copy and electronic)			
➤ analysis procedures			
➤ servicing procedures			
➤ enterprise quality procedures			
➤ work organization and planning processes			
Task skills (which assessment(s) or class activity will test that the candidate can demonstrate a single task?)			
Task management skills (which assessment(s) or class activity will test that the candidate can meet the performance criteria whilst completing other tasks)			

ELEMENTS /PERFORMANCE CRITERIA	Assessment methods/task See Assessment Guide below for description		
	KNOWLEDGE TEST	ASSESSMENT TASK	3rd PARTY
Job/role environment (which assessment(s) or class activity will test that the candidate can meet the performance criteria within their job)			
Contingency management skills (which assessment(s) or class activity will test that the candidate considers what might go wrong and takes action to prevent or correct)			
<b>SPECIFIC EVIDENCE REQUIREMENTS / CRITICAL ASPECTS OF EVIDENCE</b>			
It is essential that competence in this unit signifies ability to transfer competence to changing circumstances and to respond to unusual circumstances in the critical aspects of:			
➤ observing safety procedures and requirements			
➤ communicating effectively with others involved in or affected by the work			
➤ selecting methods and techniques appropriate to the circumstances			
➤ completing preparatory activity in a systematic manner			
➤ conducting the inspection in accordance with workplace and manufacturer/component supplier requirements			
➤ accurately interpreting wear analysis results			
➤ completing service of braking systems in accordance with workplace and manufacturer/component supplier requirements			
➤ completing service of braking systems and associated components within workplace timeframes			
➤ equipment is presented to customer in compliance with workplace requirements			



## Appendix 2-11: Assessment Guide

Reference to assessment matrix	Methods of assessment	Description of task	Employability Skills							
			Planning & organizing	Communication	Self Management	Teamwork	Problem Solving	Initiative & enterprise	Technology	Learning
KNOWLEDGE TEST										
ASSESSMENT TASK										
3 <sup>RD</sup> PARTY										

**Appendix 2-12: Assessment Tool Samples for Labelling  
Diagrams, Multiple Choice and Written Tests**

**Question 1.**

On the sketches below name each type of brake shoe arrangement

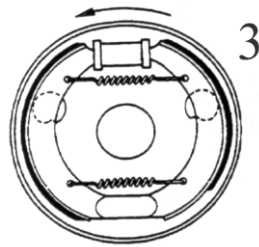


Figure 1.23

Brake shoe arrangement \_\_\_\_\_

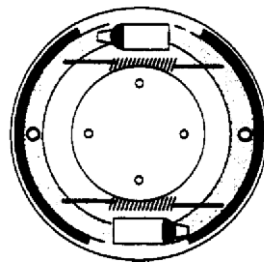


Figure 1.18

Brake shoe arrangement \_\_\_\_\_

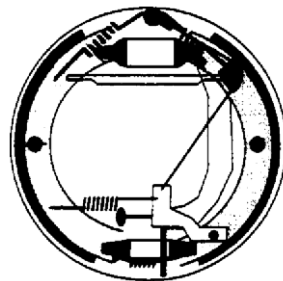
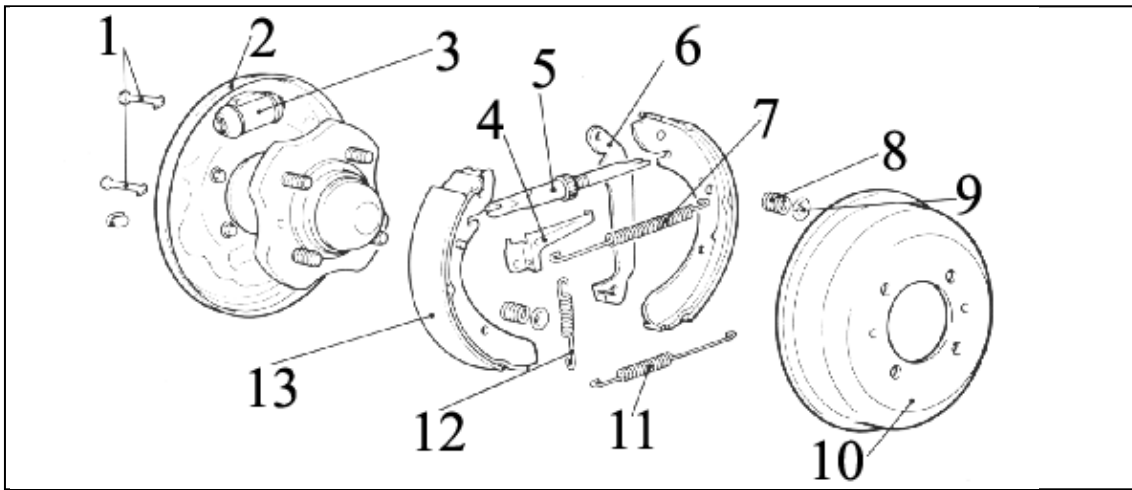


Figure 1.19

Brake shoe arrangement \_\_\_\_\_

**Question 2.**

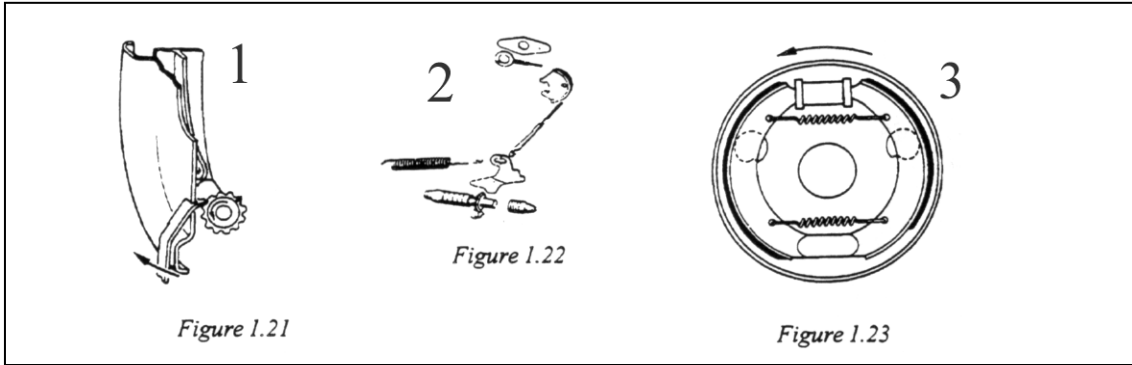


Identify the brake system components number 1 to 13 and give a purpose or function for each component.

No	Name	Purpose / Function
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		

### Question 3

Identify the following adjuster types.



1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

### Question 4.

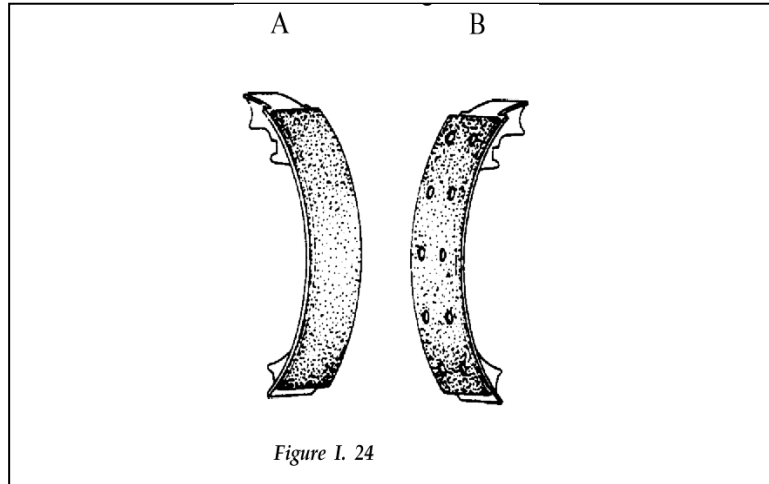
Explain the method used to manually adjust self-adjusting brakes fitted to a duo servo brake assembly.

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**Question 5.**



State the following methods of lining attachment:

A. \_\_\_\_\_ B. \_\_\_\_\_

**Question 6.**

From May Vol. 1 Ch. 23 explain the operation of a leading and trailing brake shoe assembly during the following conditions:

(a) Brake application

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(b) Brake release

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---

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---

(c) State if this system has equal braking forward and reverse

Yes  No

(d) State which shoe gains assistance (self energizing effect) from forward motion of the vehicle.

Leading  Trailing

(e) State which shoe gains assistance (self energizing effect) in reverse

Leading  Trailing

(f) Does each shoe gain the same force from the pressure within the wheel cylinder?

Yes  No

(g) State which shoe is likely to have increased lining wear

Leading       Trailing

**Question 7.**

Explain the operation of a two leading shoe brake assembly-during the following conditions:

(a) Brake application:

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(b) Brake release:

---

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---

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---

(c) State if this system has equal braking forward and reverse.

Yes                       No

(d) If NO explain why:

---

---

---

---

(e) State which direction both shoes obtain a self-energizing effort.

Forward  Reverse  Both directions

(f) Do both shoes always produce equal braking effort in reverse

Yes  No

### Question 8.

Explain the operation of a duo servo type brake assembly during the following conditions:

(a) Brake application:

---

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---

---

---

---

---

---

---

---



(b) Brake Release:

---

---

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---

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---

(c) State if this system has equal braking forward and reverse.

Yes  No

**Question 9.**

Explain the operation of a self adjusting brake fitted to a duo-servo brake arrangement.

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**Question 10.**

State the method of reclaiming worn/scored brake drums.

---

---

**Question 11.**

Identify four common wear conditions of brake drums:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

**Question 12.**

One location for mounting the park brake is the driver's side sill panel. Identify two other locations of mounting the park (hand) brake handle.

1. \_\_\_\_\_
2. \_\_\_\_\_

**Question 13.**

Explain how the park brake lever or handle is held in the "on" position after the park brake has been applied.

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**Question 14.**

Explain how the brake shoes are brought into contact with the brake drums when the park brake is applied.

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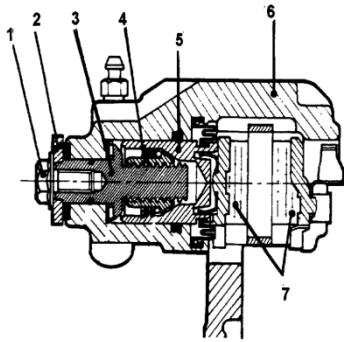


Figure 1.26

**Question 15.**

Identify and name the park brake components in the following diagram.

Components		Components	
1		5	
2		6	
3		7	
4			

### Question 16

Describe how the disc pads are brought into contact with the brake disc when the park brake is applied (type of system identified in the previous diagram).

---

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### Question 17

Complete the following:

Before adjusting the park brake it is necessary to check the service brake

---

## Appendix 2-13: Sample Assessment Checklist 1

<b>Trainee's Name:</b>			
<b>Trainer's Name:</b>			
<b>Training Module</b>			
<b>Date of Assessment</b>			
<b>Skills task</b>			
<b>Instructions for demonstration</b>			
<b>Materials and equipment</b>			
<b>Observation</b>			
<b>During the demonstration of skills, did the trainee:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
The trainee's demonstration was:			
Competent <input type="checkbox"/> Not Yet Competent <input type="checkbox"/>			
<b>Questions</b>		<b>Satisfactory response</b>	
<b>The trainee should answer the following questions:</b>		<b>Yes</b>	<b>No</b>

	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>The trainee's underpinning knowledge was:</b></p> <p>Satisfactory <input type="checkbox"/>      Not satisfactory <input type="checkbox"/></p>		
<p><b>Feedback to trainee</b></p>		
<p>The trainee's overall performance was:</p> <p>Competent <input type="checkbox"/>      Not yet competent <input type="checkbox"/></p>		
<p>Trainee's signature:</p>		
<p>Trainer's signature</p>		

## Appendix 2-14: Sample Assessment Checklist 2

Checklists are often used in assessing practical tasks and are best derived from the standards of performance objectives. This format of task objective uses very stringent standards to make specific what is described in very broad terms in the Elements of the competency unit.

For example:

Element - Inspect Cooling system and analyze results

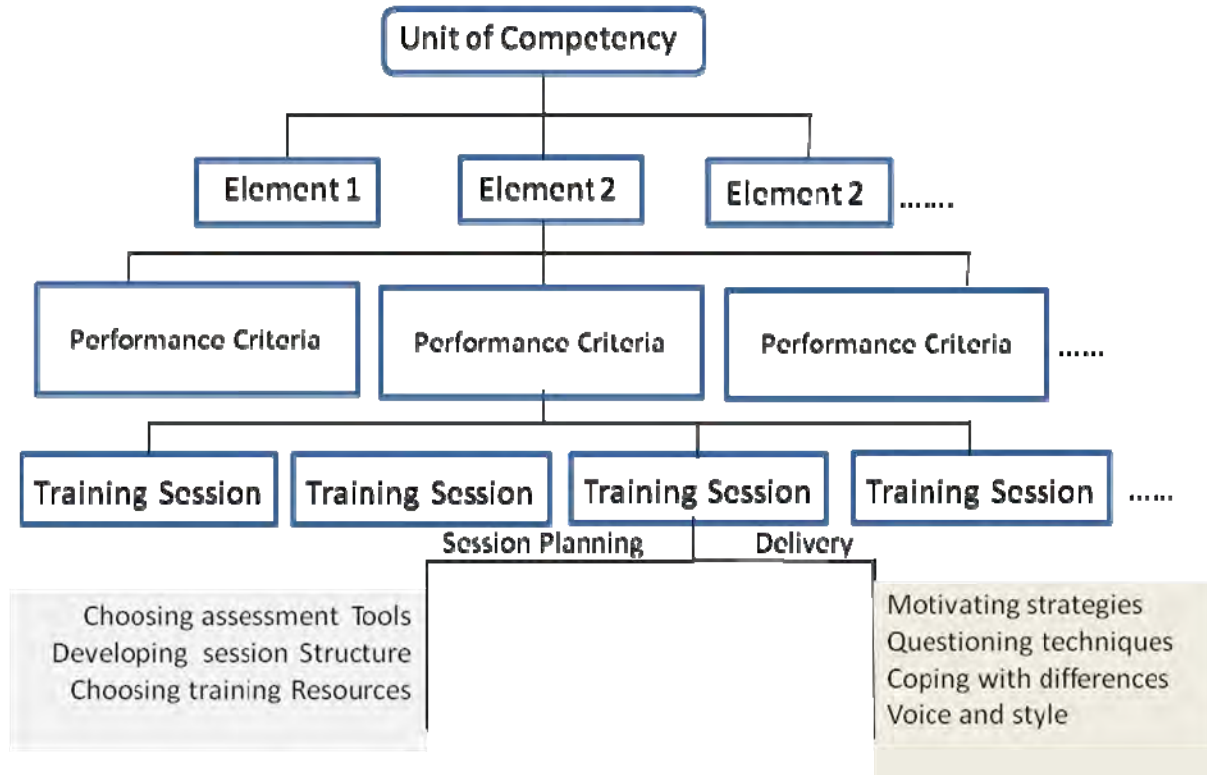
Components are inspected u visual, aural and kinesthetic (touching) means so that all leaks and faults are detected and reported according to manufacturers' procedures and specifications.

A typical checklist may look like this:

COMPONENT	SERVICEABILITY	COMMENT
Water Pump	No	Bearing worn
Thermostat	Yes	Opens at correct temperature
Fan Belt	No	Cracked and loose fibres
Hoses	Yes	No leaks
Instructor's comments	Hoses need to be checked for softness as well as leaks	

## Appendix 2-15: Training Plan Template 1

### Training Plan Design Template





## Appendix 2-16: Training Plan Template 2

<b>INFORMATION – <i>What to deliver</i></b>	<b>DELIVERY METHOD – <i>How to deliver</i></b>
<p>Certificate Level 2 information will generally cover:            System/Component purpose            Types of systems            System/Component operation            Basic science/technology principles.            The information presented should be sufficient to enable the student to achieve competency in the unit.</p>	<p>Teacher-centered methods can include:            Lecture            Lecture and Demonstration            PowerPoint presentation            Self-paced (supervised) using stand-alone resources            Combination of methods</p>
<p>Practical Task procedures including:            Researching technical information, specifications and procedures</p>	<p>Demonstration and explanation            Provide opportunities to use workshop manuals, internet and other references.</p>
<p>Practical Task Activities at Certificate Level 2 can include:            Routine removal and replacement of commonly serviced components            Minor adjustments</p>	<p>Lead practical sessions with demonstrations, supervised observation.            Planning of sessions needs to consider:            Availability of tools/equipment            Number of students            Workshop layout            Sequence/order of activities            Time availability</p>
<p>List of Learning Resources</p>	<p>Resources can include:            Workbooks            CDs            PowerPoint presentations            Internet</p>
<p>Workshop Equipment</p>	<p>For example:            Hand Tools            Specialized Tools            Test Equipment            Workspace, benches, hoists, jacks, stands etc.</p>
<p>Assessment Tools</p>	<p>Underpinning knowledge is commonly assessed using multiple choice tests.            Practical tasks need to be assessed in line with Performance Criteria. These can be written as Performance Objectives - in the form of checklists.</p>

## Appendix 2-17: UOC Delivery Training Plan (Sample 1)

COMPETENCY UNIT TRAINING PLAN	
AUR20666A: Ignition Systems	
COMPETENCY OBJECTIVE	
To assist the students in obtaining the knowledge in the following: Personal and equipment safety, construction, operation and diagnosis of ignition systems.	
COMPETENCY ELEMENTS;	
<ol style="list-style-type: none"> <li>1. Safety.</li> <li>2. Operating principles. (Mechanical and electronic).</li> <li>3. Measuring and Testing.</li> <li>4. Diagnosis and repair.</li> </ol>	
PRE-REQUISITES;	
<p><u>AUR70125A</u> Occupational health and safety</p> <p><u>AUR70278A</u> Tools and equipment</p> <p><u>AUR18708A</u> Electrical systems (Minor repairs).</p>	
TEXT AND RESOURCES	
Automotive Mechanics Volume-1 and 2 by Ed May (6th Edition)	
MATERIALS AND EQUIPEMENT	
<ol style="list-style-type: none"> <li>1. Candidate must provide his/her own OH&amp;S work boots, overalls etc.</li> <li>2. Candidate must provide his/her own stationary and other requisites.</li> </ol>	
METHOD OF TRAINING	
<ol style="list-style-type: none"> <li>1. Class Room Theory.</li> <li>2. Workshop practice.</li> </ol>	
ASSESSMENT	
<ol style="list-style-type: none"> <li>1. Written test for knowledge assessment.</li> <li>2. Distributor overhaul (p 17)</li> <li>3. Spark Plugs remove and replace (p 23)</li> <li>4. Ignition system report (p 25)</li> <li>5. Oscilloscope testing (p 55)</li> <li>6. Ignition sensor testing (p 67)</li> </ol>	
ISSUED BY:	DATE

## Appendix 2-18: UOC Delivery Training Plan (Sample 2)

COMPETENCY UNIT TRAINING PLAN	
AURE 321171: Service & Repair Fuel Injection Management Systems	
<b>COMPETENCY OBJECTIVE</b>	
To gain the knowledge enabling the student to test, diagnose and repair minor electrical problems in the Fuel Injection Management System.	
<b>COMPETENCY ELEMENTS;</b>	
<ol style="list-style-type: none"> <li>1. Electronic Fuel Injection identification &amp; Operation.</li> <li>2. Test Electronic Fuel injection Systems.</li> <li>3. Trace Electronic Fuel Injection Systems</li> </ol>	
<b>PRE-REQUISITES;</b>	
<u>AUR70125A</u>	Occupational health and safety
<u>AUR70278A</u>	Tools and equipment
<u>AUR1867A / AUR18708A</u>	Batteries./ Elec. Systems minor repairs.
<b>TEXT AND RESOURCES</b>	
Automotive Mechanics Volume-1 and 2 by Ed May (6th Edition) Theory Lesson; (given at instructors discretion).	
<b>MATERIALS AND EQUIPEMENT</b>	
<ol style="list-style-type: none"> <li>1. Candidate must provide his/her own OH&amp;S work boots, overalls etc.</li> <li>2. Candidate must provide his/her own stationary and other requisites.</li> </ol>	
<b>METHOD OF TRAINING</b>	
<ol style="list-style-type: none"> <li>1. Class Room Theory. / Practice</li> <li>2. Assistance from instructor where required.</li> </ol>	
<b>ASSESSMENT</b>	
<ol style="list-style-type: none"> <li>1. Identify Electronic Fuel Injection Systems</li> <li>2. Test Electronic Fuel Injection</li> <li>3. Trace Electronic Fuel Injection Wiring Diagrams</li> </ol>	
<b>ISSUED BY:</b>	<b>DATE</b>

## Appendix 2-19: Training Session Plan Template

**Title of Session** \_\_\_\_\_  
\_\_\_\_\_

**Objectives for the Session.** (What learners must be able to do - or demonstrate - at the end of the program. This must commence with an action word):

**Assessment (Strategies and Tools)**

**Resources required.** (List the things that you will need to take with you to assist you with your training - materials, handouts, samples, etc.):

**Preparation.** (What you will do to prepare for the lesson. Prepare the training area, what equipment will you need operating, what training furniture you will need - whiteboard, OHT, arrangement of trainees, etc.):

**Training Time.** (Your estimate of how long it will take you to train the trainees to be able to achieve the objectives or outcomes of the lesson):

This example shows the information that could be included in a well-planned lesson plan.

<b>Time</b>	<b>Trainer Activity</b>	<b>Trainee Activity</b>
<p>Insert the accumulated <b>Time</b> of your lesson in this column</p>	<p>Place the <b>activities</b> that you - the <b>trainer</b> - will be undertaking in this column.</p> <p>Remember - start with a motivating <b>Introduction</b> - include:</p> <ul style="list-style-type: none"> <li>* Tell trainees the Objectives, then use</li> <li>* Questioning</li> <li>* Need to Know the Content</li> <li>* Revise Previous Material</li> <li>etc.</li> </ul> <p>Now - the <b>Lesson Body</b>.</p> <p>The range of activities that you will undertake and strategies you will use to provide the training -</p> <ul style="list-style-type: none"> <li>* Demonstrations</li> <li>* Questions</li> <li>* Explanations</li> <li>* Show and tell</li> <li>* Having trainees demonstrate to you</li> <li>* Activities</li> <li>* Highlighting information in handbooks</li> <li>* Emphasizing safety points</li> <li>* etc.</li> </ul> <p>Finally the <b>Conclusion</b>.</p> <p>This summarizes the lesson you have presented and should prove to you that trainees - and you - have been able to achieve the objectives for the lesson that you started with.</p> <p>With on-job workplace training, conclusions most often result in trainees demonstrating the skills just learned back to you. This provides you with the opportunity to correct individual faults that trainees may be using as they occur. Tell trainees again how long and to what quality the job must be done - these are the standards of the job.</p> <p>Conclusions can also contain questions which test trainee knowledge and the quality of your training. Remember: "If the trainee has not learned, the trainer has not trained."</p>	<p>Put the <b>activities</b> that you want the <b>trainees</b> to undertake in this column.</p> <p>Write what you want trainees to be doing - listening, answering a question, where positioned, etc.</p> <p>Continue to indicate what you want trainees to be doing. Demonstrating, listening, marking areas in their handouts, particular activities, etc.</p> <p>In here list the activities that trainees will perform or demonstrate that will prove that the trainees - and you - as their teacher - have achieved the objectives for the training.</p>

# **PART 3: PROCESS OF DEVELOPING APPROPRIATE MONITORING & EVALUATION FRAMEWORK**





# EXPLANATORY NOTE

A fundamental factor of CBT is training provision based on the industry's need. Thus training providers need to establish a comprehensive system to keep up with the frequently changing needs of industry, and maintain and improve training quality. In relation to this requirement, a Quality Provision System should be established the TVT system to provide comprehensive monitoring for maintaining and improving training quality.

The Quality Provision System will ensure that:

1. Quality training is provided throughout the TVT system in Iran;
2. The system adheres to principles of access and equity and maximizes outcomes for its clients; and,
3. Management systems are responsive to the needs of clients, staff and stakeholders, and maintain the environment in which TVT operates.

Monitoring and evaluating training delivery, and reporting at on the progress of training courses is the primary means of achieving quality outcomes and continuous improvement.

## WHAT IS MONITORING AND EVALUATION?

Quality assurance is an activity conducted to minimize the gap between what is planned and what is implemented. Generally if a training course is carefully planned, following this plan faithfully in the delivery of the course provides appropriate outcomes.

However in some cases there can be a need to modify the plan before and during training implementation. Modification of the course can be due to a number of reasons including misjudgment of the level of trainees, the capability of the trainers, inadequacy of facilities and training equipment and shortage of time.

Monitoring and evaluating (M&E), which is the process of systematically collecting and analyzing information, is a process that can assist in resolving these inadequacies. When conducted during a course can serve to improve the course as it is being conducted. Providing continuous M&E throughout the conduct of a course, and on completion, serves to strengthen future delivery of courses.

The process of M&E should involve as many people as possible who are involved in the training, and they should be able to share the evaluation and interpretation of the results and discuss the conclusions. This process of sharing and discussing is an important function of M&E.

Evaluation of training is not a matter of simply judging or rating a training course or those involved in it. It is more a matter of ensuring that there the training achieves the desired result, which in the case of CBT is achieving competency at the prescribed industry standards. Evaluation is also conducted to provide continuous improvement.

# QUALITY INDICATORS

In order to monitor the achievement of outcomes of training courses, there need to be quality indicators. Quality indicators are the selected items to be monitored in a training activity. Quality Indicators help give an overall picture of the outcomes being achieved by the TVT system and how well it is meeting clients' needs.

The Quality Indicators are drawn from the following five dimensions of a training course:

<b>Training Delivery</b>	This dimension of indicators shows quality of training course delivery from various viewpoints such as Course Content/ Trainee's Assessment / Learning Resources, etc.
<b>Trainer</b>	This dimension focuses on quality of trainer in the course delivery.
<b>Training Support Environment</b>	This dimension shows how TVTO indirectly supported trainees rather than delivering the course for the successful outcomes.
<b>Trainee's Learning Experience</b>	This dimension focuses on the extent to which learners are engaging in training likely to promote high-quality skill outcomes and includes learner perceptions of the quality of their competency development and the support they receive or have received from TVTO.
<b>Training Outcome</b>	This dimension shows outcomes or output of training such as the number of enrolments and qualifications completed and units of competency awarded by TVTO. Employment situation and performance of the graduates in their workplaces is also important indicator as the final output of training.

Table 3-1 shows list of quality indicators. Quality indicators will be further broken down to evaluation items. Data for M&E will be collected in corresponding to each identified evaluation items. M&E tools are to be developed in a way that creating questions for each evaluation items.

Table 3-1: Quality Indicators

<b>Dimension</b>	<b>Quality Indicator</b>
Training Delivery	Course Content / Trainee's Assessment / Learning Resources / Training Equipment / Safety/ Clear expectations
Trainer	Instructional Skill / Technical knowledge Interpersonal Skill / Management Skill
Training Support Environment	Training Room / Training Center Facilities / Administration and support
Trainee's Learning Experience	Achievement / Motivation / Readiness / Overall Satisfaction
Training Outcome	Enrolment rate / Attendance Rate / Completion rate / Dropout Rate / Employment rate / Performance in workplace

Information about the quality of training being provided by the TVTO is relevant to a wide range of people. The key audiences are the TVTO management and their Provincial Office and relevant departments of the TVTO. They provide valuable information that the TVTO can use to assess their performance.

In addition, quality can be monitored over time to identify both improvements and any downward trends. Learner and employer survey results provide the TVTO with a basis for taking actions for further improvement.

## WHEN DO YOU EVALUATE?

M&E should be taking place all through training. However, the timing of the evaluation depends very much on precisely what the evaluator is focusing on at any given time in the training activity.

For example, if the focus is specifically on workplace performance, then the best time to evaluate would be some time after participants have had time to enter (or re-enter) the workforce and apply the training. In the case of evaluating on-the-job performance, conducting evaluation while the training is taking place, or immediately after the training activity would not be conclusive.

In carrying out the evaluation process, the following issues need to be considered:

- ✓ How long will participants need to practice and apply the new skills and information?
- ✓ How long will it take before changes in productivity can be witnessed?
- ✓ What can be observed and evaluated during training?

# DERIVING INFORMATION IN THE EVALUATION PROCESS

The information needed in order to evaluate a training program can be gathered from a variety of people including:

**Trainees** Trainees can provide valuable information in order to evaluate the effectiveness of the training. As they are the ones involved in the training they are the ones who can provide feedback regarding the trainer, the content and structure of the program and any improvements in their performance.

**Trainer** The trainer also can offer valuable information regarding many aspects of the training program. As the trainer is the one who is presenting the information, their own reflections on how well they presented the training program and its content is important. They can also offer information on how well they thought participants learned new information and how well they are progressing. The trainer can also provide information regarding on the job results if they are in the workplace. However, it is generally supervisors and managers who see on the job results more than the trainer.

**Other people** Other people who might evaluate the effectiveness of a training program include supervisors, managers and assessors. It is difficult for these people to evaluate the trainer or the content of the training program unless they are involved and can observe these areas. However, these people are valuable for gathering information on participant progress and on the job results.

# COLLECTING FEEDBACK

In order to provide a balanced evaluation of a training course, it is necessary to collect feedback and information about different aspects of the training. The following is an outline of the two main kinds:

## Qualitative

Qualitative data is difficult to measure and quantify but allows for feelings and attitudes to be included. Examples include: 1) participant attitude to program structure; and 2) how participants feel about the information provided.

## Quantitative

Quantitative data is easy to measure and quantify and relate to outputs, costs and time. Examples include: 1) number of participants completing the program; and 2) costs of providing the training.

Qualitative data is usually collected from open ended questions and should be quoted as it is, or grouped together into similar responses. Care must be taken not to interpret the response. The people reading the report will then have the opportunity to draw their own conclusions.

When collecting information to use for evaluation purposes, it is important to consider the question of ethical practices. Whenever people are asked for their opinions and judgments about aspects of their work or training one has to be aware that one is entering a very private domain. Questions need to be carefully phrased and their intent discussed with the respondents to avoid the interviewees' perception that their privacy is being intruded on.

Many people feel very threatened and even fearful when they are asked for this kind of information because they may not be sure exactly how it is going to be used. Confidentiality and privacy must always adhere to when gathering data. If it is possible to offer anonymity to participants when they answer questions or to give feedback it is more likely that the interviewer will receive a wider range of open responses.

# EVALUATION CRITERIA

There are several requirements that all evaluation methods must meet. The following is a summary of the five main criteria:

- Validity** Does the evaluation method measure what it is designed to measure? For example, if you want to gather information on whether participants have learnt to drive a forklift would you give them a questionnaire or observe them driving a forklift?
- Reliability** Is the information that the evaluation method has gathered consistent? If the same questionnaire was administered to the same participant two days later, the results should be the same, providing there has not been any new training.
- Clarity** All instructions and information given to the person providing feedback should be clear and simple to understand. Make sure that there are no ambiguities in any part of the process.
- Brevity** Keep the extent of the evaluation – the number of questions, for example – to a manageable level. If there is too much for participants to wade through, they may lose concentration or become frustrated. This could result in results not being consistent, not accurate and not completed.
- Economy** The method that you use should not be too time consuming or costly to administer and analyze. If, for example, you have a large group of participants, a survey would be easier to administer than, say, a one-to-one interview.

It is important to consider the degree of difficulty that may be encountered in analyzing results of the evaluation process and “scoring” them. If the process becomes too complex, the benefits for both the course evaluator and the course implementers may be reduced. It is also important to consider how useful the information is likely to be for all concerned.



## EVALUATION METHODS

There are many methods that can be used to evaluate a training program.

The methods selected will depend on the area being evaluated and the kind of information being sought. Table 3-2 shows a list of methods with its advantages and disadvantages.

Table 3-2: List of Evaluation Methods

<b>Method</b>	<b>Advantages</b>	<b>Disadvantages</b>
Observation	<ul style="list-style-type: none"> <li>➤ Easy to see a skill being performed competently</li> <li>➤ Non-verbal language can provide valuable information</li> </ul>	<ul style="list-style-type: none"> <li>➤ Intrusive</li> <li>➤ Is open to misinterpretation</li> </ul>
Interviews	<ul style="list-style-type: none"> <li>➤ Opportunity to provide opinions</li> <li>➤ Can monitor verbal and non-verbal responses</li> </ul>	<ul style="list-style-type: none"> <li>➤ Time consuming</li> <li>➤ Interviewer may influence responses</li> </ul>
Performance appraisals	<ul style="list-style-type: none"> <li>➤ Can discuss performance</li> <li>➤ Identify areas for improvement</li> </ul>	<ul style="list-style-type: none"> <li>➤ Participants information is usually confidential</li> </ul>
Self evaluation	<ul style="list-style-type: none"> <li>➤ Identifies own strengths and weaknesses</li> <li>➤ Helps reflect on own performance</li> </ul>	<ul style="list-style-type: none"> <li>➤ Can be time consuming</li> <li>➤ Participants may find it difficult to do</li> </ul>
Cos-Benefit analysis	<ul style="list-style-type: none"> <li>➤ Identify how much the program costs</li> <li>➤ Can cover many areas</li> </ul>	<ul style="list-style-type: none"> <li>➤ Time consuming</li> <li>➤ Cannot always attribute dollar value to all areas</li> </ul>
Questionnaires	<ul style="list-style-type: none"> <li>➤ Save time, economical to administer</li> <li>➤ Can cover a large number of participants</li> </ul>	<ul style="list-style-type: none"> <li>➤ Time consuming and difficult to prepare</li> <li>➤ May lose concentration if too lengthy</li> </ul>

By using a range of methods the evaluator will be able to gather more reliable information. If an interview is used, for example, a written questionnaire can also be administered so that there can be a crosscheck of the responses for accuracy.

Another important point to remember is that the information collected should always be of direct relevance to the evaluation being conducted.

For example, if the evaluation is primarily for the purpose of conducting a cost benefit analysis, then all information collected in the evaluation should relate specifically to this purpose. If on the other hand, the intention is to determine whether the trainee has achieved competency to industry standards, then the information gathered should relate specifically to his/her level of competency.

## **Effective questioning**

When collecting feedback on training questions can be designed in a variety of ways, including written questionnaires, interviews or verbal questions posed when observing a participant performing a task.

## **Interviews**

An interview is a set of questions, asked by the interviewer, where participant's answers are either summarized or recorded by the interviewer. Interviews provide the opportunity for participants to give their opinions and these can then be probed in detail by the interviewer.

If there are non-verbal responses that do not agree with the verbal message, it is then possible to follow up with further questioning during the interview to try to explain the perceived contradictions.

Some examples of interview questions are:

- ✓ What aspects of your safety training have you put into action? Please explain; and,
- ✓ What aspects of the training program have you found most useful? Please explain.

It is important that before commencement the interviewer clearly outlines the purpose of the interview and structures the questions appropriately. There are a number of things to keep in mind to ensure that the questions will be listened to and understood by all participants:

- ✓ Ask questions clearly and at normal pace;
- ✓ Use simple sentences;
- ✓ Repeat the question if necessary; and,
- ✓ Rephrase the question if necessary.

## **Questionnaires**

A Questionnaire is a set of written questions that are answered in writing by participants. The main advantage of using questionnaires is that they save time and are economical to administer.

When questionnaires are used to gather evaluative information, it is important to:

- ✓ Prepare the questionnaire carefully, giving consideration to the type of information required;
- ✓ Ensure that questions are written clearly and unambiguously;
- ✓ Provide all the information that participants need in order to respond validly to the questionnaire and to return it promptly; and,
- ✓ Avoid lengthy questionnaires.

### **Designing questions**

When designing an evaluation it is necessary to think about the questions that will be asked of each area. Some examples of appropriate questions are listed in Table 3-3:

Table 3-3: List of Questions

<b>Questions about the trainer</b>	<ul style="list-style-type: none"> <li>• Did the trainer present information in a clear manner?</li> <li>• Was the purpose of the training clearly explained?</li> <li>• Did the trainer provide opportunities to ask questions?</li> </ul>
<b>Questions about the training program</b>	<ul style="list-style-type: none"> <li>• Was the program well structured?</li> <li>• Was the program relevant to your work?</li> <li>• Were the training resources useful?</li> </ul>
<b>Questions about trainees</b>	<ul style="list-style-type: none"> <li>• Did trainees achieve the training outcomes?</li> <li>• Were trainees able to apply the information in their workplace?</li> <li>• Did trainees feel that their needs were met?</li> </ul>
<b>Questions about the training results</b>	<ul style="list-style-type: none"> <li>• Did the training increase productivity?</li> <li>• Did the training decrease workplace accidents?</li> <li>• Did the training result in better workplace performance?</li> </ul>

# **ANALYZING FEEDBACK**

As previously mentioned, because it is necessary to gather information during the training program one should not wait until the conclusion of a course to analyze the responses from participants. It is possible to make ongoing decisions about modifications based on the analysis of participants' feedback as soon as it is collected.

Information gathered for evaluation needs to be organized so that it can be easily interpreted. It is advisable to group information together in the form of a separate document or report such as a spreadsheet, graph, chart or computer printout so that the information can be displayed in a manner that is easy to follow.

If you are using a computer to display the information for you, make sure that you have a thorough understanding of the data before you draw any conclusions and present your information.

You should also consider the impact that different presentations could have on interested people. Take into account what they like and expect so that you can present your information.

Analyzing is the process of sharing information and getting consensus among people concerned what are the issues. Conclusion of the M&E should not be finalized only by the Monitors or Inspectors alone. There is no black or white type of simple answer to judge the course is good or bad. Involve as many people as possible who are involved in the training.

## **Dealing with the Evaluation results**

Once the evaluation results have been analyzed, it is possible to draw conclusions and make some recommendations. The recommendations may relate to: 1) Skills of the trainer; 2) Availability of resources; 3) Training methods used; and, 4) Clarity of program aims and purpose.

Changes recommended by the evaluation might occur throughout the training program. Participants may make observations in the early stages of the program which you will have the opportunity to respond to. Feedback should be accepted as constructive advice, acknowledged and incorporated wherever possible.

As information is gathered about the training program, the people involved in the evaluation may be very interested in what will be done with the findings. To keep faith with these people it is necessary to demonstrate that their input has been listened to, and their contribution valued.

While every endeavor needs to be made to be made to meet individual needs, there may be some difficulty encountered in modifying the entire program if only one person thinks it should change.

It is always a good idea to keep reviewing the evaluation approach, even when there do not appear to be any negative results.

# REPORTING

After analyzing the findings for the overall program, it is necessary to produce a report. This report will provide valuable information on the background, methodology and outcomes of the evaluation to: 1) trainers, supervisors / TVTC managers; 2) Provincial Office managers, Monitoring managers and staff; and, 3) TVTO HQs.

A few points should be kept in mind when preparing to communicate the evaluation findings:

- ✓ Select an appropriate time – this should be as soon as possible after the conclusion of the program;
- ✓ Target specific people and make the message meet their individual needs;
- ✓ Select the means of communication of the Report carefully. In some cases there may need to be written communication whereas in other cases oral communication may be sufficient;
- ✓ Remove emotion and bias from the communication and make sure the report is objective; and,
- ✓ The information gathered may have to be presented to additional people in the organization.

Two types of reports are:

- ✓ Review and update reports – which reflect on progress, and how the program is being fine tuned to take into account the feedback received; and,
- ✓ Final reports – which present the full range of findings, draw final conclusions and make recommendations for future programs.

The results of the M&E process should be shared with people involved in the all process of training development and implementation. Sharing information is one of important functions of M&E.

M&E is the process to develop consensus among people concerned about the quality of current training courses and direction of future activities.

# PROCESS STEPS

## OVERVIEW

Monitoring & Evaluation (M&E) will identify if the training course is effective as it was designed and will provide information for modification and improvement of the training management cycle.

M&E comprises the following four Steps:

1. Planning;
2. Data Gathering;
3. Analysis; and,
4. Reporting.

In order to monitor and evaluate whole aspects of training course, evaluation items are identified by breaking down the following 5 dimensions of the training course: 1) training delivery; 2) the trainer(s); 3) the Training Support Environment; 4) the trainee' learning experience; and, 5) the training outcome (refer to the Part 1 Explanatory Text 1.2 “Quality Indicator”).

This part of the Manual presents a logical flowchart of the process required to monitor and evaluate courses and outlines each major step in this process. It also provides examples of forms and templates that can be used in the process. These forms and templates can be selected, modified and customized for use as required.

It is important to remember that the objective of M&E is to provide the information in order to take effective actions for modification and improvement of the training management cycle. The information will only be of value if it is acted on by course designers and deliverers/trainers. One should also guarantee that the data obtained will not be used for any other purposes.

# LOGICAL FLOW CHART OF PROCESS STEPS

The four steps of M&E are described in the Figure 3-1.

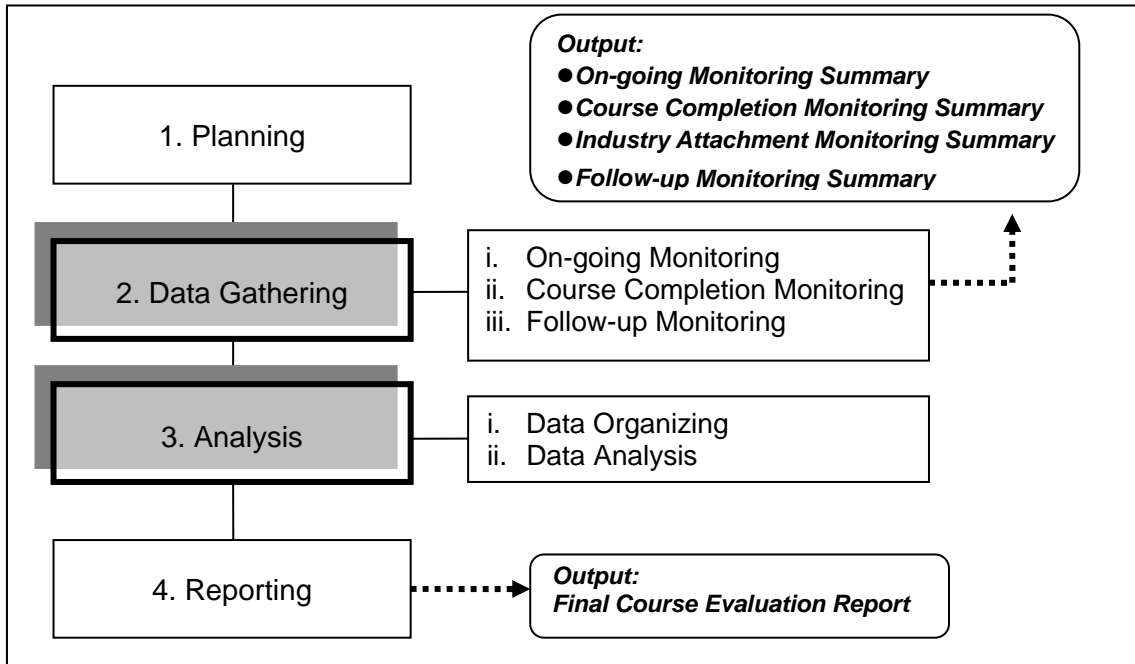


Figure 3-1: Logical Flow Chart of M&E

In this manual, the logical flowchart of the process is explained as: Step 1 Planning; Step 2 Data Gathering; Step 3 Analysis; and, Step 4 Reporting.



## EXPLANATION OF PROCESS STEPS

### STEP 1

### Planning

The background of the training course should be considered for making the monitoring & evaluation (M&E) plan by strategically combining three activities namely, On-going Monitoring, Course Completion Monitoring and Course Follow-up Monitoring.

Each activity comprises methods for data gathering. Table 3-4 shows the list of activities and methods.

Table 3-4: List of M&E activities and methods

Activity	Methods	Details
On-going Monitoring	Observation Monitoring	A monitor visits course the delivery site and checks documentations, observe course delivery, and interview to the trainers.
	Trainee's Feedback Monitoring	A monitor visits the course delivery site and checks the trainee's satisfaction by focus group interview or feedback questionnaire.
	Industry Attachment On-going Monitoring	A monitor visits the Industry Attachment workshop and check the progress and the trainee's satisfaction.
Course Completion Monitoring	Questionnaire Survey	A monitor visits the course delivery site, checks the trainee's satisfaction and gathers Feedback from the trainers through distributing questionnaires.
	Focus Group Interview	A monitor visits course the delivery site and gathers feedback data by conducting focus group interviews with trainees.
Follow-up Monitoring	Interview	A monitor visits the graduate's working place and gathers feedback data through interviews with graduates and their employers.
	Questionnaire Survey	A monitor sends out questionnaires to graduates and their employers to gather feedback data.

The training course background and Units of Competence (UOCs) included in the course should be first examined and then how to monitor and evaluate the course and summarize the findings should be planned.

On-going Monitoring focuses on gathering data during the delivery Course Completion Monitoring identifies what was happening during the delivery, and Follow-up Monitoring identifies what the result of the training course was.

On-going Monitoring can be conducted using the following 3 methods: Observation Monitoring, Trainees' Feedback Monitoring, and Industry Attachment Program Monitoring. In particular, newly developed training courses should be monitored frequently. However, less frequent or sampling and focused monitoring is effective when course courses have been delivered over a long period.

Although ongoing monitoring of courses is necessary, the most effective time to gather data is on course completion. The methods recommended for this evaluation on completion of a course include: questionnaire survey and focus group interviews conducted with trainees. It is preferable for a Monitor to use a combination of the recommended methods. It is important to note, however, that in order to derive quantitative data, it is necessary to use questionnaires.

Follow-up monitoring is aimed at gathering feedback data of the final outcomes of the training based on the performance of graduates who have been employed in the industry of the relevant training area. The recommended methods of gathering this data include: interviews with graduates and employers and use of questionnaire surveys used with graduates and employers. As far possible, a Monitor should visit selected graduates' working places and gather feedback from graduates and their employers or direct supervisors on their performance by conducting face-to-face interviews. Using questionnaires can save time and cost but there are two negative factors associated with them. Generally people are reluctant to spend the time to fill in written questionnaires especially if they are long and complex. The information provided in a questionnaire response can be insufficient if it is not verified by the course Monitor through discussions with the respondent.

See

**Appendix 3-1: Monitoring & Evaluation Plan Matrix**

## STEP 2

## Gather Data

The three sub-steps recommended for data gathering are: 1: On-going Monitoring, Sub Step 2: Course Completion Monitoring and Sub Step 3: Follow-up Monitoring. A final analysis of the data will be completed after the last sub step of the follow-up survey. However, it is advised that a summary gathered feedback data be provided to the trainers and relevant personnel right as soon as possible in order to enable modification and improvement of course development and delivery.

The process of gathering data in each step is described in Table 3-5.

Table 3-5: List of data to be gathered in each sub step

Sub Step	Quality Indicator
On-going Monitoring & Course Completion Monitoring	Training Delivery Dimension: Course Content / Trainee's Assessment / Learning Resources / Training Equipments / Safety/ Clear expectations
	Trainer Dimension: Instructional Skill / Technical knowledge Interpersonal Skill / Management Skill
	Training Support Environment Dimension: Training Room / Training Center Facilities / Administration and support
	Trainee's Learning Experience Dimension: Achievement / Motivation / Readiness / Overall Satisfaction
Course Completion Monitoring & Follow-up Monitoring	Training Outcome Dimension: Enrolment rate / Attendance Rate / Completion rate / Dropout Rate / Employment rate / Performance in workplace

## Sub STEP2.i

## On-Going Monitoring

In this step, feedback data related to training delivery, trainer, training environment, and trainee's learning experience should be gathered during course delivery.

On-going Monitoring can be conducted using 3 methods including: Observation Monitoring, Trainee's Assessment Monitoring, Trainee's Feedback Monitoring, and Industry Attachment Program Monitoring. This manual explains how to monitor in each method respectively.

### a. Observation Monitoring

Course documentation should be checked, and course delivery should be observed using the following quality indicators:

- ✓ Training Delivery;

- ✓ Trainer;
- ✓ Training Support Environment; and,
- ✓ Trainee's Learning Experience.

A Monitor should keep in mind that it is not possible to evaluate by observing a part of delivery. A Monitor's role is to gather pieces of data and reserve judgment until training delivery is completed.

It is also necessary to conduct interviews with the course trainers to check if the training has progressed in keeping with the Training Plan and to find out if there had been difficulties in implementing the training.

It is necessary then to summarize the gathered data into an On-going Monitoring Sheet

See  
**Appendix 3-2     On-going Monitoring Sheet**

b. Trainee Feedback Monitoring

Feedback data should be gathered by conducting focus group interview and/or distribute questionnaire to the trainees. This should be conducted after a Monitor understands the course situation by other methods so that a Monitor can gather effective feedback efficiently. And summarize the gathered data into an On-going Monitoring Sheet

See  
**Appendix 3-2     On-going Monitoring Sheet**  
**Appendix 3-3     Trainee's On-going Daily Feedback Questionnaire**  
**Appendix 3-4     Trainee's On-going UOC Feedback Questionnaire**

The Summary of gathered data should be provided to the trainers and relevant personnel preferably soon after data gathering so that it will help to modify or improve the course delivery.

c. Industry Attachment Program Monitoring Data Gathering

This sub step should be conducted when an industry attachment program is included in a training course. (It is highly recommended that all courses include some period of industry attachment if possible). Feedback data related to Training Delivery, Trainer,

Training Environment, and Trainee's Learning Experience should be gathered during the program. It should be checked if trainees are involved in practical hands on skills in necessary tasks by checking the Industry Attachment Task Completion Check Sheet filled out by supervisors at Industry. Important documents to be checked include:

- ✓ Schedule;
- ✓ Attendance Record; and,
- ✓ Industry Attachment Task Completion Check Sheet.

The use of an Industry Attachment Task Completion Check Sheet is an effective template to indicate the progress of program. It should be made sure that industry supervisors maintain this record on a daily basis. In addition, interviewing to trainees can be conducted to gather feedback data. This information can be summarized them into an Industry Attachment Activity On-going Monitoring Sheet.

Feedback data from trainees indicating their satisfaction with the attachment and industry supervisors in relation to their evaluation of the trainees should be gathered on completion of industry attachment.

See

**Appendix 3-5 Industry Attachment Task Completion Check Sheet**  
**Appendix 3-6 Industry Attachment On-going Monitoring Sheet**  
**Appendix 3-7 Industry Attachment Trainee's Feedback Questionnaire**  
**Appendix 3-8 Industry Attachment Industry Supervisor's Feedback Questionnaire**

The Summary of gathered data should be provided to the trainers and relevant personnel immediately after data gathering so that it will help to modify or improve the remaining course delivery.

## **Sub STEP2.ii Course Completion Monitoring**

In this step, feedback data related to Training Delivery, Trainer, Training Environment, and Trainee's Learning Experience, and fact data of Training Outcome should be gathered.

Feedback data from trainees should be gathered by asking them to fill out the questionnaire at the end of the course. It is important to explain the objective of the questionnaires and emphasize that the gathered information will be used only for improving the course. It should also be stated that the results will in no way have any bearing on the training result.

Trainers' feedback should be also gathered using a questionnaire at the end of the course.

See

**Appendix 3-9 Course Completion Trainee's Feedback Questionnaire**

Feedback data from trainees can be gathered by interviewing. Interviews can be conducted using the Course Completion Focus Group Interview Sheet. It has to be remembered however that an interview is a dynamic process. A Monitor should maintain an open mind. He/she can gauge the interest of interviewees and control the interview in such a way that they can obtain predictable and unpredictable feedback.

See

**Appendix 3-10 Course Completion Focus Group Interview Sheet**

The Summary of gathered data should be provided to the trainers and relevant personnel preferably soon after data gatherings so that it will help to modify or improve the course delivery.

### **Sub STEP2.iii Follow-Up Monitoring**

This sub step should focus on gathering data related specifically to the training result. It is broken down into the two activities which incorporate the survey of employment situation of graduates and the survey of graduates' performance in their workplaces.

#### 1. Survey employment situation of graduates

Employment situation of the graduates should be surveyed after a determined period from the course completion, and how the course helped graduates to or work in their

current workplaces should be interviewed by telephone. When the graduate cannot find a job, ask the reasons.

Having finding out employment situation, categorize graduates into below three:

- A) employed by the industry as same as the training area
- B) employed by the industry different from the training area
- C) not employed yet

See

**Appendix 3-11 Graduate Follow-up Monitoring Interview Sheet**

## 2. Survey graduates' performance in their workplaces

Feedback data should be gathered from the graduates of Category A and their employers by interview. Interviews should be dynamic and flexible enough to obtain effective feedback data for identifying issues of training standard, course curriculum and delivery. It is important to prepare well in advance by reviewing course content, target graduate's background, assessment record and Course Completion Monitoring feedback.

The feedback data, which should be gathered from the graduates and employers are as below.

From graduates

- ✓ Details of current job
- ✓ Performance in current job
- ✓ Overall satisfaction on the training course
- ✓ Suggestions for improving training course

From employers/supervisors

- ✓ Graduate's performance in current job
- ✓ Expectation from training

See

**Appendix 3-11 Graduate's Follow-up Monitoring Interview Sheet**  
**Appendix 3-12 Employer's Follow-up Monitoring Interview Sheet**

The Summary of gathered data should be provided to the trainers and relevant personnel preferably soon after data gatherings.

## **STEP 3**      **Analyze Gathered Data**

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In this step, all the gathered feedback data will be analyzed to evaluate the course. This step comprises two sub steps which are organizing gathered data and interpreting organized data. Since a lot of quantitative feedback data as well as qualitative data will be gathered, organizing these data in advance will make analysis easy and contribute toward effective analysis.

### **Sub STEP3.i**      **Organize Gathered Data**

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It is necessary to gather all inputs into a tally sheet. Once the data is recorded it is possible to calculate averages and deviations for each question in relation to each trainee and constructing appropriate graphs and charts. (The feedback data of On-going Monitoring, Industry Attachment Monitoring and Course Completion Monitoring should be organized immediately after the data gathering without waiting completion of Follow-up Monitoring.)

### **Sub STEP3.ii**      **Analyze Organized Data**

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Organized feedback data should be analyzed in every quality indicators and interpret it.

The key questions to be asked for analyzing are:

- ✓ The course helped trainee to develop their competency to work "in industry"?
- ✓ The course was delivered as it was expected?
- ✓ Are there any areas to improve?

In order to answer to the above key questions, analyze organized data in below view points.

- ✓ What quality indicators are high?



- ✓ What quality indicators are low?
- ✓ What quality indicators are varied by trainee?
- ✓ What UOCs are in high performance?
- ✓ What UOCs are in low performance?
- ✓ What UOCs are varied in performance by graduates?
- ✓ Are there any trainees whose feedback/performance is different from majority?
- ✓ What quality indicators have the gaps between trainee's feedback and trainer's feedback?
- ✓ What UOCs performances have the gaps between graduate's feedback and employer' feedback?
- ✓ What quality indicators have gaps between trainee's feedback and industry's feedback in Industry Attachment feedback data?
- ✓ Comparison of feedback between the different trainee's background categories.
- ✓ Comparison of feedback between the On-going monitoring, Course Completion Monitoring and Follow-up Monitoring.
- ✓ What comments are repeatedly coming up?
- ✓ Are there any comments that should be highlighted?
- ✓ Comparison of the data between this course and others.

Additional data in order to obtain various opinions from people involved in the training management cycle such as training standard development, curriculum development, and training delivery should be gathered through meetings and interview when analyzing. The below Table 3-6 shows the list of target process of training management to be considered for analysis.

Table 3-6: List of Target Process to be considered for analysis

Curriculum Development Process	<ul style="list-style-type: none"> <li>• Course Learning and Assessment Guide development</li> <li>• Studying units of competency</li> <li>• Identification of training tasks</li> <li>• Confirmation relevance and currency of tasks with industry</li> <li>• Training resources development (Training work books, other training resources, assessment matrix, assessment tools,</li> <li>• Training Plan development</li> </ul>
Course Preparation Process	<ul style="list-style-type: none"> <li>• Industry Attachment arrangement</li> <li>• Trainer's training</li> <li>• Recruitment</li> </ul>
M&E Planning	<ul style="list-style-type: none"> <li>• M&amp;E planning</li> </ul>

- 
- Evaluation tools
- 

It is recommending share the draft result with trainers and discuss for coming up with final conclusion. Course trainers are the most committed persons and know what happened during the delivery. They can help a Monitor to interpret the gathered data.

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## **STEP 4** Reporting

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Full range of findings should be presented with evidence data in the report. It should draw final conclusions by making issues clear with for each process of the training management such as “Training standard development”, “Curriculum development” and “Delivery”. Finally recommendations for further modification and improvement based on the findings will be summarized for each training management process and the report will be submitted to concerned parties.

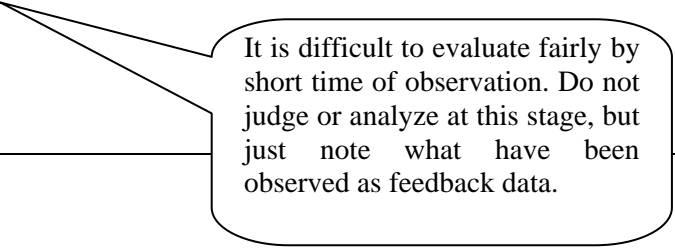
# APPENDICES

## Appendix 3-1: Form "Monitoring & Evaluation Plan Matrix"

Monitoring & Evaluation Plan Matrix			
<b>Target courses, areas:</b>			
<b>Background:</b>			
<b>Overall Strategy:</b>			
Element	Method(when and how)	Tools	Output
On-going Monitoring			
Observation Monitoring	<div style="border: 1px solid black; border-radius: 15px; padding: 5px; display: inline-block;">                     Describe when (how often) and how                 </div>	➤ Delivery Monitoring Sheet	On-going Monitoring Summary
Trainee's Assessment monitoring		➤ Delivery Monitoring Sheet	
Trainee's feedback monitoring		➤ Trainee's Daily Feedback Questionnaire ➤ Trainee's UOC Feedback Questionnaire	
Industry Attachment (IA) program monitoring		➤ IA Task Check Sheet ➤ IA Trainee's Feedback Questionnaire	IA Feedback Summary Form
Course Completion Monitoring			
Feedback Questionnaire Survey		➤ Course Completion Trainee's Feedback Questionnaire	Course Completion Monitoring Summary
Focus Group Interview		➤ Course Completion Focus Group Interview Sheet	
Follow-up Monitoring		➤ Graduate's Follow-up Monitoring Interview Sheet ➤ Employer's Follow-up Monitoring Interview Sheet	Follow-up Monitoring Summary
Final Output: Final Course Evaluation Report			



## Part 2: Delivery Observation

Domain	Feedback Data Observed
1 Training Course Delivery 1.1 Trainee's Assessment and Tools 1.2 Learning Resources 1.3 Workshop Equipments 1.4 Safety 1.5 Clear expectations by trainees	 <p>It is difficult to evaluate fairly by short time of observation. Do not judge or analyze at this stage, but just note what have been observed as feedback data.</p>
2 Trainer 2.1 Instructional Skill 2.2 Technical knowledge 2.3 Interpersonal Skill 2.4 Management Skill	
3 Training Support Environment 3.1 Rooms 3.2 Training Center Facilities 3.3 Administration and support	
4 Trainee's Learning Experience 4.1 Participation and commitment	

## Part 3: Trainee's Feedback (focus group interview, feedback questionnaire)

Domain	Feedback Data Collected
1 Training Course Delivery 1.1 Course Content 1.2 Trainee's Assessment and Tools 1.3 Learning Resources 1.4 Workshop Equipments 1.5 Safety 1.6 Clear expectations by trainees	
2 Trainer 2.1 Instructional Skill 2.2 Technical knowledge 2.3 Interpersonal Skill 2.4 Management Skill	
3 Training Support Environment 3.1 Rooms 3.2 Training Center Facilities 3.3 Administration and support	
4 Trainee's Learning Experience 4.1 Attendance 4.2 Achievement (Progress) 4.3 Motivation	

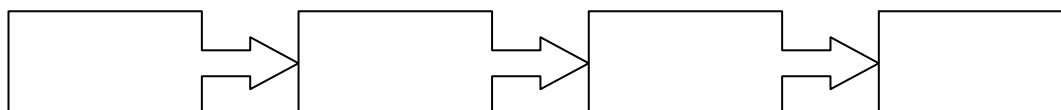
## Part 4: Trainer's Feedback (interview)

Domain	Feedback Data Collected
1 Training Course Delivery 1.1 Course Content 1.2 Trainee's Assessment and Tools 1.3 Learning Resources 1.4 Workshop Equipments 1.5 Safety 1.6 Clear expectations by trainees	
2 Trainer 2.1 Instructional Skill 2.2 Technical knowledge 2.3 Interpersonal Skill 2.4 Management Skill	
3 Training Support Environment 3.1 Rooms 3.2 Training Center Facilities 3.3 Administration and support	
4 Trainee's Learning Experience 4.1 Attendance 4.2 Achievement (Progress) 4.3 Motivation	

**Part 5: Comments and Recommendations from Monitor**

Describe here what a Monitor found out and what a Monitor discussed with the trainers. Future recommendation should be summarized here.

**Reporting**



## Appendix 3-3: Form "Trainee's On-going Daily Feedback Questionnaire"

### Sample A

Date: \_\_\_\_\_ Name of Trainee: \_\_\_\_\_

<What did you learn today?>

There questions can be modified depending on what data a Monitor needs to collect.

< Has the training of today changed any of your perspective?>

<Are trainer's instruction and training equipment good enough to learn today's subject?>

<Any problems in today's session?>



## Sample B

Date: \_\_\_\_\_ Name of Trainee: \_\_\_\_\_

<What was good in today's session?>

<What was difficult in today's session?>

<Any comment>

## Sample C

Date: \_\_\_\_\_ Name of Trainee: \_\_\_\_\_

	Yes	So so	No
1. I could achieve today's goal.	3	2	1
2. Trainer's instruction was easy to understand.	3	2	1
3. Assessment was Farsi.	3	2	1
4. Learning resource was good.	3	2	1
5. Training equipment was good.	3	2	1
6. Training was safety.	3	2	1

<Any Comments>

## Appendix 3-4: Form "Trainee's On-going UOC (Unit of Competence) Feedback Questionnaire"

Please provide your feedback by answering below questions. All information collected will be used only for the purpose of improving the training course and will not be disclosed to any other third parties. The results will in no way have any bearing your training result.

Date: \_\_\_\_\_ Name of Trainee: \_\_\_\_\_

	Excellent	Good	So-so	Bad
1. How much of this UOC did you learn?	4	3	2	1
2. How was trainer's teaching method in this UOC	4	3	2	1
3. How was the workbook for this UOC	4	3	2	1
4. How were the training facilities/equipments/tools for this UOC?	4	3	2	1

<Any Comments>

There questions can be modified depending on what data a Monitor needs to collect.

A Monitor can obtain quantitative data. It is effective identify the trend in over time.

## Appendix 3-5: Form "Industry Attachment Task Completion Check Sheet"

Unit of Competence: Inspect and Service Brakes		
Trainee Name		
Supervisor Name		
Company Name		
Training Course	Name of training course	
	Training Center	
	Industry attachment period	

Task	Done in Workplace	Comments	Date	Signature
Comments				

State the task expected done in the industry attachment.

When industry supervisor observed a trainee is engaged in the task, supervisor will mark.

Supervisor's signature

## Appendix 3-6: Form "Industry Attachment On-going Monitoring Sheet"

1.1 Monitor's Name	
1.2 Date & Time	
1.3 Name of Training Course	
1.4 Training Center	
1.5 Name of Company	
1.6 Name of Trainer in Charge	

### Part 1: Document Check

Item	Check	Comment
Schedule	<input type="checkbox"/> OK <input type="checkbox"/> Problems	Prepared properly?
Task check sheet	<input type="checkbox"/> OK <input type="checkbox"/> Problems	Progress, coverage:

### Part 2: Activity Observation

Domain	Feedback Data Observed
1 Training Course Delivery 1.1 Trainee's Assessment and Tools 1.2 Learning Resources 1.3 Workshop Equipments 1.4 Safety 1.5 Clear expectations by trainees	<div style="border: 1px solid black; border-radius: 15px; padding: 10px; width: fit-content; margin: auto;"> <p>It is difficult to evaluate fairly by short time of observation. Do not judge or analyze at this stage, but just note what have been observed as feedback data.</p> </div>
2 Supervisors at industry 2.1 Instructional Skill 2.2 Technical knowledge 2.3 Interpersonal Skill 2.4 Management Skill	
3 Company Environment 3.1 Rooms 3.2 Training Center Facilities 3.3 Administration and support	
4 Trainee's Learning Experience 4.1 Participation and commitment	

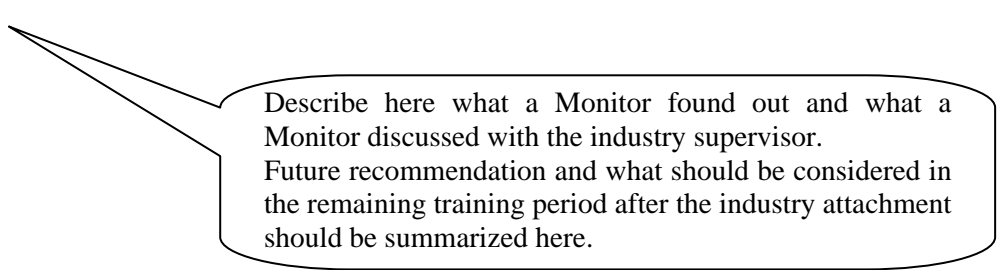
### Part 3: Trainee's Feedback (focus group interview)

Domain	Feedback Data Collected
1 Training Course Delivery 1.1 Course Content 1.2 Trainee's Assessment and Tools 1.3 Learning Resources 1.4 Workshop Equipments 1.5 Safety 1.6 Clear expectations by trainees	
2 Trainer 2.1 Instructional Skill 2.2 Technical knowledge 2.3 Interpersonal Skill 2.4 Management Skill	
3 Training Support Environment 3.1 Rooms 3.2 Training Center Facilities 3.3 Administration and support	
4 Trainee's Learning Experience 4.1 Attendance 4.2 Achievement (Progress) 4.3 Motivation	

### Part 4: Supervisor's Feedback (by interview)

Domain	Feedback Data Collected
5 Trainee's Learning Experience 5.1 Attendance 5.2 Achievement (Progress) 5.3 Motivation	

### Part 5: Comments and Recommendations from Monitor



Describe here what a Monitor found out and what a Monitor discussed with the industry supervisor. Future recommendation and what should be considered in the remaining training period after the industry attachment should be summarized here.

## Appendix 3-7: Form "Industry Attachment Trainee's Feedback Questionnaire"

The purpose of conducting this questionnaire survey is to collect information and data in order to know about your learning result as well as improve the industry attachment training program. All information collected will be used only for that purpose and will not be disclosed to any other third parties. The results will in no way have any bearing your training result. Please provide your feedback on the industry attachment by filling out below form. Your honest and frank feedback will be greatly appreciated.

Background Information		
Trainee	Name	
	Name of company	
Training Course	Name of training course	
	Training Center	
	Industry attachment period	

[Please describe what you learned and impact to your learning.]

**Part 1 : Your activities (Technical Skills)**

Did you practice or observe tasks related to below UOC by Industry Attachment program?	Not at all	No	Yes	Yes, very much
1. UOC 1	1	2	3	4
2. UOC 2	1	2	3	4
3. UOC 3	1	2	3	4
4. UOC 4	1	2	3	4
5. UOC 5	1	2	3	4
Below skills are not yet trained in the course but if there is any				
6. UOC 6	1	2	3	4
7. UOC 7	1	2	3	4
8. UOC 8	1	2	3	4
9. UOC 9	1	2	3	4
10. UOC 10	1	2	3	4
[Comments]				

**Part 2 : Your activities (Employability Skills)**

Did you learn below employability skills by Industry Attachment program?	Not at all	No	Yes	Yes, very much	No Idea
21. Communicate ideas and information	1	2	3	4	0
22. Work with others and in teams	1	2	3	4	0
23. Solve problems	1	2	3	4	0
24. Use technology	1	2	3	4	0
25. Collect, analyse and organize information	1	2	3	4	0
26. Plan and organize activities	1	2	3	4	0
27. Learn and update yourself	1	2	3	4	0
[Comments]					



<b>Part 3: Your feedback</b>					
	Bad	Not Good	Good	Very Good	No Idea
31. Effectiveness of the Industry attachment	1	2	3	4	0
[Comment]					
32. Tools and equipment at the workplace	1	2	3	4	0
[Comment]					
33. Safety at the workplace	1	2	3	4	0
[Comment]					
34. Support from people at the workplace	1	2	3	4	0
[Comment]					
35. Overall satisfaction of the industry attachment program	1	2	3	4	0

## Appendix 3-8: Form "Industry Attachment Supervisor's Feedback Questionnaire" (for Industry Supervisors)

Thank you very much for tremendous effort for providing experience of working in industry. It will be very much appreciated if you could give feedback on trainee's performance in your workplace on the completion of the industry attachment. This feedback will be immediately given to the trainees and will help them to recognize their current level and support their effective training. Your kind cooperation will be highly appreciated.

Course Title	
Period	
Name of trainee	

### Part 1 : Trainee's performance (Technical Skills)

How did the trainee perform below skills?	Bad	Not Good	Good	Very Good	No activity
1. UOC 1	1	2	3	4	0
2. UOC 2	1	2	3	4	0
3. UOC 3	1	2	3	4	0
4. UOC 4	1	2	3	4	0
5. UOC 5	1	2	3	4	0
Below skills are not yet trained in the course but if there is any					
6. UOC 6	1	2	3	4	0
7. UOC 7	1	2	3	4	0
8. UOC 8	1	2	3	4	0
9. UOC 9	1	2	3	4	0
10.UOC 10	1	2	3	4	0

[Comments]

**Part 2 : Trainee's learning (Employability Skills)**

How did the trainee perform below skills?	Bad	Not Good	Good	Very Good	No Idea
21. Communicate ideas and information	1	2	3	4	0
22. Work with others and in teams	1	2	3	4	0
23. Solve problems	1	2	3	4	0
24. Use technology	1	2	3	4	0
25. Collect, analyze and organize information	1	2	3	4	0
26. Plan and organize activities	1	2	3	4	0
27. Learn and update yourself	1	2	3	4	0

[Comments]



## 1 About Training Course delivery

(1: Strongly disagree, 2: disagree, 3: Neutral, 4: agree, 5: strongly agree)

	Question	Please circle the number	Not known
1.1 Course Content	1.1.1 Course content was what I expected	1 2 3 4 5	0
	1.1.2 Course content was practical	1 2 3 4 5	0
	1.1.3 Course was at the right level for me	1 2 3 4 5	0
1.2 Trainee's Assessment	1.2.1 The way of assessing trainee was faire.	1 2 3 4 5	0
	1.2.2 Assessments were based on realistic activities.	1 2 3 4 5	0
	1.2.3 Assessments were useful for me to know how much I know.	1 2 3 4 5	0
1.3 Learning Materials	1.3.1 Learning materials were easy to understand	1 2 3 4 5	0
	1.3.2 Learning materials included necessary information	1 2 3 4 5	0
	1.3.3 Learning materials were available when I need.	1 2 3 4 5	0
1.4 Training Equipments	1.4.1 Training equipments were up to date.	1 2 3 4 5	0
	1.4.2 Training equipments were in good condition.	1 2 3 4 5	0
1.5 Safety	1.5.1 I didn't face any dangerous situation during the course.	1 2 3 4 5	0
1.6	1.6.1 Workshop had safe environment for training.	1 2 3 4 5	0
1.7 Clear expectations	1.7.1 I had enough information about the course before course started.	1 2 3 4 5	0
	1.7.2 I know what I was expected to learn.	1 2 3 4 5	0
<Your Comments>			

## 2. About Trainer

	Question	Please circle the number	Not known
2.1 Instructional Skill	0.1.1 I was encouraged to ask questions to trainer	1 2 3 4 5	0
	0.1.2 I could clearly understood trainer's instruction	1 2 3 4 5	0
2.2 Technical knowledge	0.1.3 I was satisfied with trainer's technical knowledge on the subject delivered	1 2 3 4 5	0
2.3 Interpersonal Skill	1.1.1 I was encouraged to keep on learning by trainer	2 2 3 4 5	0
2.4 Management Skill	2.1.1 I was satisfied with trainer's time management	1 2 3 4 5	0
<Your Comments>			

### 3 About Training Support Environment

	Question	Please circle the number	Not known
3.1 Room	3.1.1 The room condition was good enough for the training	1 2 3 4 5	0
3.2 Facilities	3.2.1 Facilities of the training center was satisfactory	1 2 3 4 5	0
3.3 Administration and support	3.3.1 Administration and support of the training center was satisfactory.	1 2 3 4 5	0
<Your Comments>			

### 4. About Your Learning Experience

	Question	Please circle the number	Not known
4.1 Achievement	I am satisfied with my achievement	1 2 3 4 5	0
	The course prepared me for work	1 2 3 4 5	0
	I learned to work with people.	1 2 3 4 5	0
	I learned to plan and manage my work	2 2 3 4 5	0
4.2 Motivation	I looked for my own resources to help me to learn	1 2 3 4 5	0
	I approached trainers, TVTC staff if I need help	1 2 3 4 5	0
	I pushed myself to understand difficult things	1 2 3 4 5	0
4.3 Overall Satisfaction	I am satisfied with the training course	1 2 3 4 5	0
	I would recommend this course to others	1 2 3 4 5	0
<Your Comments>			

## 5. Your Comments

5-1. What was best thing in the training for you?

5-2. What was bad thing in the training for you?

5-3. Please give any other comments

## "Sample Questions for Course Completion Trainee's Feedback Questionnaire"

These are the sample questions for feedback questionnaire as examples.

### Training Delivery Dimension

#### Course Content:

- The information I was learning was current and up to date.
- I was learning the skills for my chosen career.
- The course focused on relevant skills.
- The course combined theory with practice to support me in both understanding and applying the information provided.
- The mix of classroom, demonstration, simulation and workshop was effective in covering all the information required to complete the course successfully.
- Session hours and its length were appropriate.
- Implementation of the course was punctual.

#### Learning Materials:

- Access to training books and handouts was good.
- Training books and handouts quality was good.
- General & technical equipment & co-educational material were good.
- Practicality of materials in the training context was good.
- The learning material was written in clear plain language
- I could readily find the information I needed in the learning materials.
- The learning materials to be current so that I could be sure that I had the most up to date information
- The learning materials covered all the information I needed to complete the course successfully
- The learning materials was supported by video or multimedia material
- The learning materials indicated useful links to sources of information including Internet site

#### Clear Expectation:

- The course outline gave an accurate indication of what I was to learn.
- The course outline gave me a good understanding what was expected from me.
- The timetable gave an accurate indication of when and where I was expected to learn.

#### Trainee's Assessment:

- Assessment requirements were provided at the beginning of the subject/module.
- The assessment requirements were clear to me.
- The assessment items made me confident that I could perform the required tasks to the required standard.
- Assessment conditions, e.g. re-submits, were clear and reasonable.
- The assessment items were appropriate and well linked to the learning activities and program.
- I received adequate and timely feedback on my progress.

#### Training Equipment:

- The number of the equipment was enough for the number of trainees.
- Training equipment was same as used in workplace.
- Overall, I was satisfied with the training equipment for this course.

#### Safety:

- I did not have any experience of danger.



- Safety was always considered during the course.

#### Trainer Dimension

##### Instructional Skill:

- Trainer's effort in material delivering in the workshop was good.
- The trainer had the expertise to effectively teach this course.
- The instructor paced the program to meet my needs and that of the other participants.
- The instructor used the learning resources to support the activities in the program.
- The trainers made the subject as interesting as possible.

##### Technical knowledge:

- Trainer's command of the subject was good.
- Trainers had relevant industry experience.

##### Interpersonal Skill:

- Trainer's success to encourage trainee's participation in discussions and activities was good.
- Social skills of trainer in treating trainees were good.

##### Management Skill:

- Trainer's capability and patience in planning and delivering the material was good.
- Dominance in managing the class was good.
- Punctuality of the trainer based on the schedule was good.
- Homework and assignments have helped me learn.

#### Training Support Environment Dimension

##### Rooms:

- Class air-conditioning, brightness, and sanitation space were good.
- Room environment made me concentrate on the session.

##### Facilities:

- Satisfaction of dormitory equipment was good.
- Overall, I was satisfied with the training center's facilities.

##### Administration and support:

- Hospitality during the course was good.
- Code of conduct of those in charge of training was good.
- The size of the classroom was adequate.
- The standard classroom facilities were adequate (Audio-visual/overhead projectors/etc).
- The atmosphere in the classroom was comfortable (heating/cooling/lighting).
- Staff treated me with respect.
- Staffs were friendly and helpful.

#### Learning Experience Dimension

##### Achievement:

- I developed the skills expected from this course.
- I developed the knowledge expected from this course.

##### Motivation:

- I was motivated to learn all through the course.

##### Overall Satisfaction:

- Overall, I would rate the quality of your educational experience high.
- Overall, I was satisfied with the quality of teaching.

## Appendix 3-10: Form "Course Completion Focus Group Interview Sheet"

Instructions for a Monitor  
 Obtain the documents listed in the Part 1.  
 Prepare basic data of the course  
 Set some specific points to interview by checking basic data and interview to the course trainer.  
 When starting, inform that the purpose of conducting this focus group interview survey is to collect information in order to improve the training course. All information collected will be used only for that purpose and will not be disclosed to any other third parties. The results will in no way have any bearing your training result.

Monitor's Name	
Date & Time	
Name of training course	
Training Center	
Name of Trainers	

### Part 1: Basic Data of the Course

List of Trainees

No. of Applicant	No. of enrolment	No. of Dropout

Training Course Content (UOCs)

Schedule of the Course

Attendance Check List

<b>Attendance Rate</b> <small>(NO. of Attending days /NO. of trainees x training days)</small>	0% (xx days/xx days)  *Excluding IA
Name of trainees who had bad record of attending record	

Assessment Record

UOC Achievement Rate		%
(No. of achievement UOCs x trainees/Total NO. of UOCs x trainees)		
UOC	Practical Assessment	Theoretical Assessment
1: UOC 1		
2: UOC 2		
3: UOC 3		
4: UOC 4		
5: UOC 5		
6: UOC 6		
7: UOC 7		
8: UOC 8		
9: UOC 9		

Training Resources

On-going Monitoring Summary

<p>&lt;Issues&gt;</p>
-----------------------

## Part 2: Focus Group Interview

- Specific points to interview

Specific point	Comments and Opinions from Trainees
Point-1:	
Point-2:	
Point-3:	
Point-4:	
Point-5:	

### Part 3: Feedback from Trainees

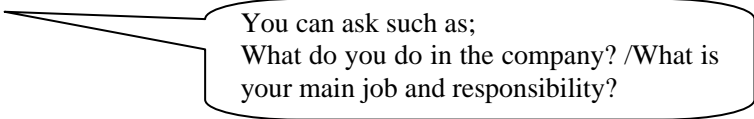
Domain	Comments and Opinions from Trainees
<p>1 Training Course Delivery</p> <ul style="list-style-type: none"><li>1.1 Course Content</li><li>1.2 Trainee's Assessment and Tools</li><li>1.3 Learning Resources</li><li>1.4 Workshop Equipments</li><li>1.5 Safety</li><li>1.6 Clear expectations by trainees</li></ul>	
<p>2 Trainer</p> <ul style="list-style-type: none"><li>2.1 Instructional Skill</li><li>2.2 Technical knowledge</li><li>2.3 Interpersonal Skill</li><li>2.4 Management Skill</li></ul>	
<p>3 Training Environment</p> <ul style="list-style-type: none"><li>3.1 Rooms</li><li>3.2 Training Center Facilities</li><li>3.3 Administration and support</li></ul>	
<p>4 Trainee's Learning Experience</p> <ul style="list-style-type: none"><li>4.1 Attendance</li><li>4.2 Achievement (Progress)</li><li>4.3 Motivation</li></ul>	

## Part 4: Comments and Recommendations





**Category A: For those who are employed with related job ---- Your current situation**

1 Company	What is your company?
	Name
	Telephone No.
	Address of your working place
	Business Line
	No. of employees
Is it changed after the course participation? <input type="checkbox"/> Yes <input type="checkbox"/> No	
2 Title/Position	What is your title in the company?  Is it changed after the course participation? (if you are in same company) <input type="checkbox"/> Yes <input type="checkbox"/> No
3 Responsibility (content of work)	 <p>You can ask such as; What do you do in the company? /What is your main job and responsibility?</p> <p>Is it changed after the course participation? (if you are in the same company)  <input type="checkbox"/> Yes            <input type="checkbox"/> No</p>
4 Employment status	What is your employment status? (if you are in the same company.) <input type="checkbox"/> A:Full Time <input type="checkbox"/> B:Part Time <input type="checkbox"/> C:Self-employed  Is it changed after the course participation? <input type="checkbox"/> Yes <input type="checkbox"/> No



# Interview Sheet

## Category A: --- your performance in your current job

1 Overall Satisfaction		Strongly Disagree	Disagree	Agree	Strongly agree	Do not know
	1.1 My skills and knowledge developed in the training were relevant for my current job in overall.	1	2	3	4	0

2 Technical Skill and Knowledge by UOC	State the UOC included in the training course.	Strongly Disagree	Disagree	Agree	Strongly agree	Do not know
	2.1 Course helped me to perform UOC 1	1	2	3	4	0
	[Problem/Comment]					
	2.2 Course helped me to perform UOC 2	1	2	3	4	0
	[Problem/Comment]					
	2.3 Course helped me to perform UOC 3	1	2	3	4	0
	[Problem/Comment]					
		Strongly Disagree	Disagree	Agree	Strongly agree	Do not know
	2.4 Course helped me to perform UOC 4	1	2	3	4	0
	[Problem/Comment]					
2.5 Course helped me to perform UOC 5	1	2	3	4	0	
[Problem/Comment]						
2.6 Course helped me to perform UOC 6	1	2	3	4	0	
[Problem/Comment]						
2.7 Course helped me to perform UOC 7	1	2	3	4	0	
[Problem/Comment]						

If response was 1 or 2, ask reason by questions such as ;

- Were there any problems in specific elements?
- Were there any problems in trainee's assessment?
- Were there any problems in learning resource?
- Were there any problems in training equipment?
- Were there any problems in trainer's instruction?

	2.8 Course helped me to perform UOC 8	1	2	3	4	0
	[Problem/Comment]					
	2.9 What is your weakness in technical skill and knowledge?					
3 Employability Skill		Strongly Disagree	Disagree	Agree	Strongly agree	Do not know
	3.1 Course helped me to communicate ideas and information	1	2	3	4	0
	3.2 Course helped me to work with others and in teams	1	2	3	4	0
	3.3 Course helped me to solve problems	1	2	3	4	0
	3.4 Course helped me to use technology	1	2	3	4	0
	3.5 Course helped me to collect, analyze and organize information	1	2	3	4	0
	3.6 Course helped me to plan and organize activities	1	2	3	4	0
	3.7 Course helped me to learn and update by himself/herself	1	2	3	4	0
4 Overall Comment	Please give your comment for improvement of the training course.					

End of the Category A.



**Category C: For those who are not employed at the moment ---- Your current situation**

1	[ ] No	1.1 Please explain the situation:
		1.2 Does the course help you to do your current activity? [ ]1:Strongly disagree [ ]2:Disagree [ ]3: Agree [ ]4: Strongly agree Please explain your answer:
	[ ] Yes	1.1 How are you looking for a job? 
		1.2 Does the course help you to search for a job? [ ]1:Strongly disagree [ ]2:Disagree [ ]3: Agree [ ]4: Strongly agree Please explain your answer:
2	[ ]1:Strongly disagree [ ]2:Disagree [ ]3: Agree [ ]4: Strongly agree Please explain your answer:	
3	[ ]Yes -> What skills and knowledge you need? ( )	
	[ ]No Are you currently enrolled in further study? [ ]Yes -> What is the program? ( ) [ ]No	

End of the Category C.

## Check list for Conduction of Follow-up Monitoring

1. Preparation
2. Telephone interview to graduate
3. Face to Face Interview to graduate
4. Face to Face Interview to employer

Step	Action
1. Preparation	<input type="checkbox"/> Review UOC and Monitoring reports <input type="checkbox"/> Reconfirm list of target graduate and contact telephone number <input type="checkbox"/> Prepare "Follow Up Interview Survey Sheet" for target graduates <input type="checkbox"/> Simulate interview
2. Telephone interview to graduate	<input type="checkbox"/> Review his assessment record, evaluation, and comment <input type="checkbox"/> Bring Interview Sheet, UOC, etc.
3. Face to Face Interview to graduate	<input type="checkbox"/> Reconfirm date, time and place of visit <input type="checkbox"/> Review his assessment record, evaluation, and comment <input type="checkbox"/> Bring necessary documents
4. Face to Face Interview to employer	<input type="checkbox"/> Reconfirm date, time and place of visit <input type="checkbox"/> Review his assessment record, evaluation, and comment <input type="checkbox"/> Bring necessary documents

## Appendix 3-12: Form "Employer's Follow-up Monitoring Interview Sheet"

\*Collect data by face to face or telephone interview

The purpose of conducting this questionnaire survey is to collect information and data in order to improve the training course. All information collected will be used only for that purpose and will not be disclosed to any other third parties. Your employees and your privacy will be protected. Please provide your feedback on the employees who participated in our training course by answering below questions. Your kind cooperation will be greatly appreciated.

<b>A. Background Information (For all Categories)</b>											
Date of survey											
Name of Interviewer											
Graduate (target) information	Name: Course: Center: Training Period:										
1 Company Information	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 60%; padding: 2px;">Name</td><td style="padding: 2px;"></td></tr> <tr><td style="padding: 2px;">Telephone No.</td><td style="padding: 2px;"></td></tr> <tr><td style="padding: 2px;">Address of your working place</td><td style="padding: 2px;"></td></tr> <tr><td style="padding: 2px;">Business Line</td><td style="padding: 2px;"></td></tr> <tr><td style="padding: 2px;">No. of employees</td><td style="padding: 2px;"></td></tr> </table>	Name		Telephone No.		Address of your working place		Business Line		No. of employees	
Name											
Telephone No.											
Address of your working place											
Business Line											
No. of employees											
2 Interviewee information	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 40%; padding: 2px;">Name</td><td style="padding: 2px;"></td></tr> <tr><td style="padding: 2px;">Title</td><td style="padding: 2px;"></td></tr> <tr><td style="padding: 2px;">Responsibility</td><td style="padding: 2px;"></td></tr> </table>	Name		Title		Responsibility					
Name											
Title											
Responsibility											
3 Relationship to graduates	<div style="border: 1px solid black; border-radius: 15px; padding: 10px; display: inline-block;">             Interviewee should be in the position to judge graduate's performance. Maybe direct boss or supervisor is good           </div>										
4 Contact telephone No.	Cell Phone No.: Office Phone No. :										
5 Objective of sending employees to training	(will be asked only for Mega Motor)										

## B. Questions on performance of graduate

**For Category A** (This part should be asked only for Category A)

B. Questions on performance of graduate						
For Category A (This part should be asked only for Category A)						
6 Technical Skill		Strongly Disagree	Disagree	Agree	Strongly agree	No Idea
	He/She can perform in UOC 1	1	2	3	4	0
	[ Problem/Comment]					
	He/She can perform UOC 2	1	2	3	4	0
	[Problem/Comment]					
	He/She can perform UOC 3	1	2	3	4	0
	[Problem/Comment]					
	He/She can perform UOC 4	1	2	3	4	0
	[Problem/Comment]					
	He/She can perform UOC 5	1	2	3	4	0
[Problem/Comment]						
He/She can perform UOC 6	1	2	3	4	0	
[Problem/Comment]						
He/She can perform UOC 7	1	2	3	4	0	
[Problem/Comment]						
He/She can perform UOC 8	1	2	3	4	0	
[Problem/Comment]						
4.1 What is his/her weakness in technical skill and knowledge?						

<b>(For Category A)</b>							
5 Employability Skill		Strongly Disagree	Disagree	Agree	Strongly agree	No Idea	
	5.1	He/She can communicate ideas and information	1	2	3	4	0
	5.2	He/She can work with others and in teams	1	2	3	4	0
	5.3	He/She can solve problems	1	2	3	4	0
	5.4	He/She can use technology	1	2	3	4	0
	5.5	He/ She can collect, analyze and organize information	1	2	3	4	0
	5.6	He/ She can plan and organize activities	1	2	3	4	0
	5.7	He/ She can learn and update by himself/herself	1	2	3	4	0
6 Overall satisfaction	If I need to recruit more technical staff, I want to employ graduates from the training course.		1	2	3	4	0
	I am satisfied with his/her performance of current job in overall.		1	2	3	4	0
	[Comment/What are the problems?]						

<b>C. Over all Comment</b>	
<b>(For Category A)</b>	
Please give you any comments on his/her performance in the workplace and expectation from the training course.	





