

3-2 職業指導・評価

(1) 評価システム

1) ソロ身体障害者リハビリテーションセンター（ソロRC）における評価システム

ソロRCにおける現行の募集・評価システムはおおむね以下のとおりである。

STEP1：Administration Selection（リクルート部門と共同で行う）

県社会事務所から提出された応募書類による書類選考。県社会事務所からソロRCに応募書類が送られ、ソロRCにおいて書類の記載内容をチェックする。①学歴、②医療措置の有無、③健康診断書、④家族・地域の背景、⑤職業興味・家族の協力等について、応募条件に適合するかチェックする。

この応募書類については、リクルート部門、アセスメント部門、訓練部門等全スタッフが目を通し、関係部門すべての合意が得られればソロRCに評価のため来所させる。

STEP2：インタビュー

面接を通じて応募書類の内容について確認を行う。

STEP3：各種評価の実施

- ・精神的側面：WAIS、学力テスト（インドネシア語、英語、算数）
- ・身体的側面：日本の広域・地域センターで実施しているもののうち基本的なもの、ADL・関節可動域チェック
- ・社会的側面：観察リストによるチェック
- ・職業的側面：CATB（器具検査）、ワークサンプル（ソロRCでは実施していない）

STEP4：評価結果の取りまとめ

評価結果は評価部門で取りまとめて順位づけを行う（ランキング表の作成）。さらにその結果に基づき、評価部門において各応募者を将来的な職業自立との関連で分析・検討を加える。

STEP5：職業リハビリテーション計画の策定

STEP4の検討に基づき、各応募者の職業リハビリテーション計画を策定する。

STEP6：職業指導の実施（1回目）

職業情報をビデオ等を用いて提供するとともに（ソロRCで現在作成中）、評価結果のフィードバックを行う。

STEP7：ケース会議の開催（リクルート部門が主催）

関係部門職員で構成されるリハビリテーションチームによるケース会議を開催。最終的な職業訓練対象者を決定する。

STEP8：職業指導の実施（2回目）

職業訓練の開始と並行して第2回目の職業指導を実施する。

STEP9：職業指導の実施（3回目）※ソロRCでは実施していない。

訓練を終了して就職した後に第3回目の職業指導を実施する。

2) 評価スケジュール

図1のとおりである。

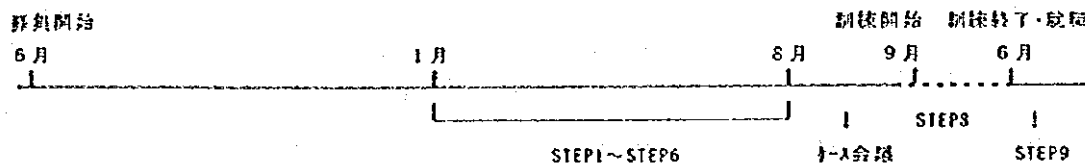


図1 評価スケジュール

- ① STEP2～STEP6については1ケースにつき2日間程度を要する。
- ② 評価あるいは訓練のために来所させる旅費及び滞在費はすべて社会省で負担するものとされている。

3) NVRCでの募集・評価システム

NVRCにおいては、訓練生を全インドネシアから募集することを前提としており、そのためのシステムとして、各地方の関係機関（州社会事務所、PANTI等）をいかにNVRCの手足として効果的に活用していくかが大きなポイントである。現在、職業評価に関しては（1）に示したSTEP1～STEP6まで各地方のPANTIで実施する方向で整理している。

(2) NVRCオープンへ向けた今後の問題点

1) 職員の配置・組織図

NVRCの職員については、1997年7月のソロ・プロジェクト終了時評価調査時に既に69名の職員が確定し、残りの職員については1997年11月までに確定するとの説明があった。しかし、今回のインドネシア側の説明では、ソフトオープニング時の職員体制は65名で運営し、残りの職員についてはソフトオープニング以降徐々に配置していくとの説明であり、最終的に定員が確保されるのは暫く先になる見通しである。したがって、ソフトオープニング以降暫くの間、少なくとも1998年6月の訓練コースの開講へ向けには、不十分な職員体制のまま業務を進めていくことになる。

組織図（図2）についても最終案の提示はあったが、各セクションがどのような業務を担当するのが明快な説明ができない状態であった。日本側は各セクションの性格の違いが不明確であることを指摘し、再度組織のあり方についてインドネシア側で検討することを要望した。

2) 本格オープンまでのスケジュール

① 募集活動

ソロRC第3期生の募集スケジュールによると、9月の訓練開始に備え、前年の6～7月頃からMRU（移動式リハビリテーションユニット）を活用した募集活動を開始し、その後11月頃から関係機関への募集文書・パンフレットの配布、関係機関主催会議への出席等を通じ募集活動を展開し、訓練生の確保に努めている。NVRCの本格オープンインドネシア側は現段階で1998年7月と考えているようであるが、ソロRCでの募集スケジュールを基準に考えれば、既に本格オープンに向けた募集活動を展開しなくてはならない時期にある（表14）。

一方で、NVRCについては現在訓練カリキュラムを作成している段階で、労働市場のニーズ及び訓練カリキュラムに応じた募集基準の見直しが必要である。また、第1期生の訓練開始時期、訓練定員については1998年7月に定員100名で開所することが要望されているが、その設定にはかなりの無理があるため、見直しが必要な状況にあり、協議の結果、1998年6月から既存の2訓練コース、定員40名でスタートすることになった。このため募集活動を行うにも募集文書を作成することすらできない状態である。さらに、NVRCの職員が配置されるのは11月のソフトオープニング以降であり、その時点で募集部門の職員が定員どおり配置されるのかどうか定かではなく、配置された職員が円滑に募集活動を展開できるか、また円滑に活動できる予算が確保されているかどうかについても心許ない状況である。

こうした状況を受け、第1期生の募集活動をどのように進めていくのか、早急に再検討しなくてはならない。この点に関してソロRCの募集部門スタッフは協力姿勢を示している。

検討事項は以下の各点である。

- ・ 募集地域
- ・ 募集条件
- ・ 募集活動実施体制
- ・ 募集活動に要する予算の確保
- ・ 募集活動のスケジュール

② 職業評価

募集活動を受けて職業評価を実施することになるが、ソロRC第3期生の評価活動は9月の訓練開始に備え、3～4月頃からソロRCにおいて実施している。NVRCの第1期生定員がソロRCと同様40名であることを考えると、NVRCの評価についてもソロRCと同様のスケジュールを考えていく必要がある。

NVRCは訓練生を全インドネシアから募ることとしており、その職業評価についてはイ

インドネシア国に5か所ある身体障害者のPANTIを活用して実施するシステムを考えている。それへ向けてインドネシア側は、各PANTIの職員に対して1997年度中に必要な研修を行い準備する予定であったが、実際は年度内に研修を実施する計画はない。

したがって、現状では第1期生の職業評価を各PANTIで実施することは難しく、NVRC及びソロRCがその業務を行わざるを得ない。しかし、NVRCについては現在、職業評価・指導部門で研修を受講しているスタッフ候補は4名で、その4名についてもすべてが職業評価部門に配属されるわけではない（研修内容は表15のとおり）。他に募集部門、就職部門へも配属されることとなる。今後、新たに採用される職員（いつ採用されるのか明確でない）に対して1997年度内に研修を実施する計画はなく、こうした状況を踏まえると第1期生に対するNVRCの評価体制は極めて脆弱である。

ソロRCについては、評価体制は整っているがソロRCがプロジェクト以外の通常業務を抱えているなかでさらにNVRCの訓練候補生に対する評価を実施するとすると、職員の負担は相当なものとなる。

インドネシア側が考えている第1期生40名を選考するための職業評価を、以上に述べた現状のなかで具体的にどのように実施するのか。その検討を募集活動の検討と並行して早急に進めていく必要がある。

検討事項は次のとおりである。

- ・評価実施機関の検討
- ・評価体制の整備
- ・評価実施のための予算確保
- ・評価スケジュール

③ 1998年開講（コンピュータ・縫製）へ向けての体制、スケジュール

1998年度の訓練コースの開始については、7月のソロ・プロジェクト終了時評価調査において「十分な準備がなされれば…」という条件付きで7月スタートを合意したところである。しかし、今回、日本側は上記①及び②の理由から1998年7月開講には相当の無理があることを指摘し、スケジュールの見直しを迫った。これに対しインドネシア側は予算上の理由から同一年度内に訓練を終了させなければならないことを強調し、訓練開始をさらに1か月早めて1998年6月開講という案を提示してきた。日本側は繰り返しその計画の困難さを説明したが、インドネシア側は第1期生に限り既に社会省のリハビリ施設で訓練を受けている者を対象に効率的に募集・評価活動を行うことを主張（表16のとおり）、指摘された種々の問題点についてもそれを解決するために必要な手段を講じることを約束する等、6月開始を覆すことは難しい状況であった。

3) 年度末・年度当初の予算の確保

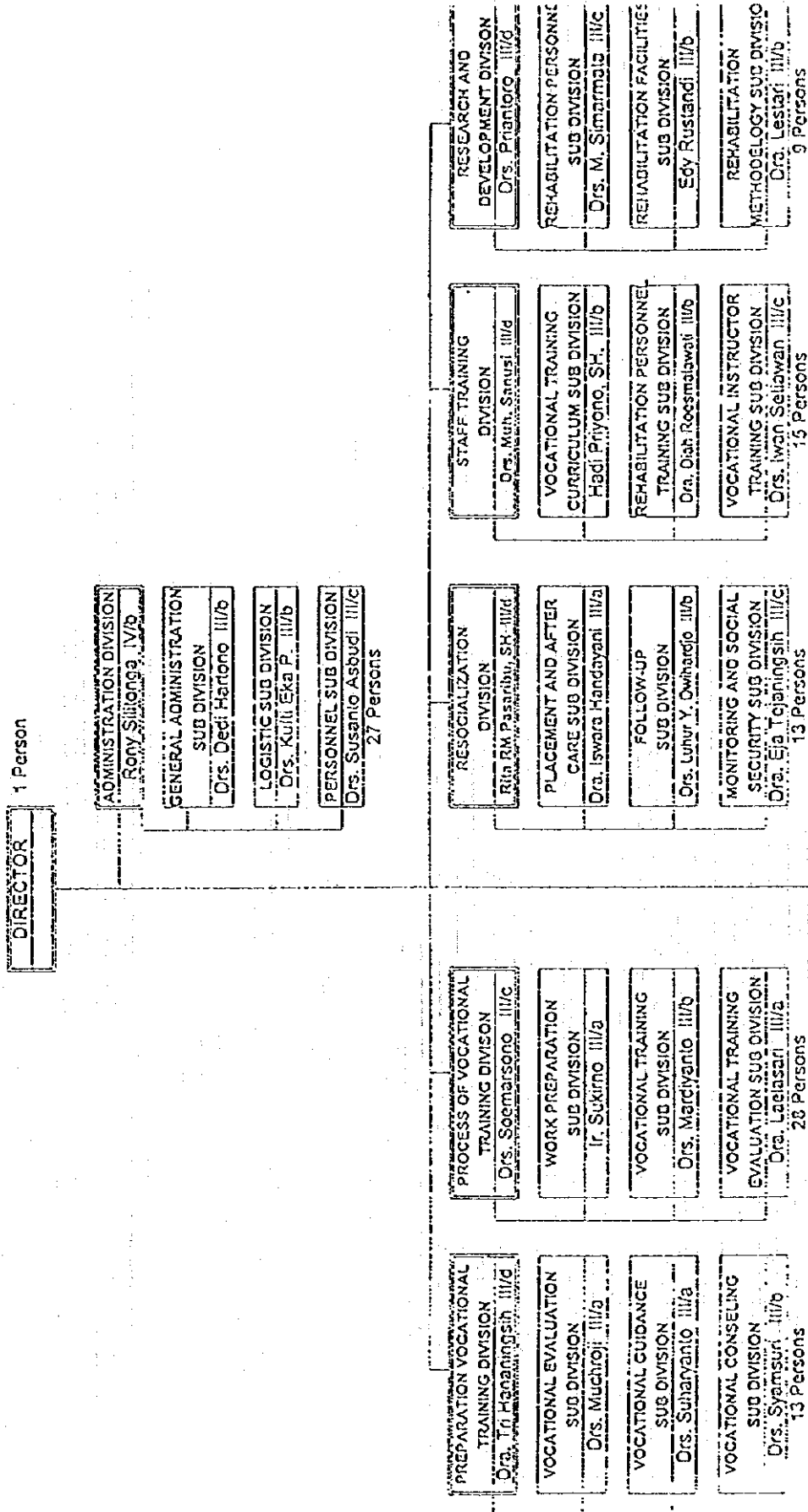
今回の協議の結果、訓練コースの開始時期は6月となったが、これに伴い次のような予算上の問題が発生する。

- ① 毎年6月から訓練を開始した場合に訓練修了が3月となり、就職活動のピークは3月～5月となる。しかし、インドネシア国では年度当初（予算年度は日本と同様）に予算を執行することは難しく、実質的に予算の執行が可能となるのは6月以降となる。実際にソロ・プロジェクトでは年度当初にインドネシア側が予算を執行することができず、日本側予算で対応せざるを得ない状況が生じた。また、年度末についても日本と同様予算上の制約から十分な活動が保障されない状況にある。このような状況下で今後具体的に就職活動をどのように保障していくのか。予算措置がされない場合、就職活動はストップすることとなる。
- ② 募集・評価活動についても6月開講の場合、それに備えた募集・評価活動のピークは年度末・年度当初に重なることとなる。評価を受けるための旅費・滞在費あるいはNVRC入所のための旅費等についてはすべて社会省が負担することとなっているが、この経費をこの時期に十分確保することができるのか。

日本側からの上記問題点の指摘に対しインドネシア側は、年度当初に特別予算を組んで以上の活動を保障することを約束した。

STRUCTURE ORGANIZATION

NATIONAL VOCATIONAL REHABILITATION CENTRE (NVRC) CIBINONG - BOGOR



FUNCTIONAL STAFF 42 Persons

図 2 NVRC組織図

表14 NVRC募集・選考スケジュール

Lampiran 8

JADWAL RECRUITMEN DAN VOCATIONAL GUIDANCE & ASSESSMENT
 PUSAT REHABILITASI VOKASIONAL BINA DAKSA
 "PROF. DR. SOEHARSO"

2016年		CIBINONG - BOGOR											
No	Tahap Kegiatan	Januari	Februari	Maret	April	Mai	Juni	Juli	Agustus	September	2017		
1.	Rekrutmen										211		Keberangkatan
1.	Penyusunan Sertifikat/Asuransi Kesehatan	XXXXXXXXXXXXXXXXXXXXXXXXXXXX											Ten USK Tim Kebersamaan NVRC
	Sertifikat/Asuransi Kesehatan	XXXXXXXXXXXXXXXXXXXXXXXXXXXX											
	Terselenggara NVRC CIBINONG	XXXXXXXXXXXXXXXXXXXXXXXXXXXX											
2.	Keputusan pendaftaran dan seleksi	XXXXXXXXXXXXXXXXXXXXXXXXXXXX											Sie Kebersamaan, Keputusan & Seleksi (Tim Kebersamaan NVRC CIBINONG)
	Keputusan dan seleksi awal	XXXXXXXXXXXXXXXXXXXXXXXXXXXX											
	Keputusan dan seleksi akhir	XXXXXXXXXXXXXXXXXXXXXXXXXXXX											
3.	Persiapan dan seleksi awal	XXXXXXXXXXXXXXXXXXXXXXXXXXXX											Tim Kebersamaan NVRC
	Persiapan dan seleksi awal	XXXXXXXXXXXXXXXXXXXXXXXXXXXX											
4.	Persiapan dan pendaftaran	XXXXXXXXXXXXXXXXXXXXXXXXXXXX											Tim Kebersamaan NVRC
	Persiapan dan pendaftaran	XXXXXXXXXXXXXXXXXXXXXXXXXXXX											
5.	Penyusunan dan pendaftaran	XXXXXXXXXXXXXXXXXXXXXXXXXXXX											Tim Kebersamaan NVRC
	Penyusunan dan pendaftaran	XXXXXXXXXXXXXXXXXXXXXXXXXXXX											
6.	Persiapan dan pendaftaran	XXXXXXXXXXXXXXXXXXXXXXXXXXXX											Tim Kebersamaan NVRC
	Persiapan dan pendaftaran	XXXXXXXXXXXXXXXXXXXXXXXXXXXX											
7.	Persiapan dan pendaftaran	XXXXXXXXXXXXXXXXXXXXXXXXXXXX											Tim Kebersamaan NVRC
	Persiapan dan pendaftaran	XXXXXXXXXXXXXXXXXXXXXXXXXXXX											
8.	Persiapan dan pendaftaran	XXXXXXXXXXXXXXXXXXXXXXXXXXXX											Tim Kebersamaan NVRC
	Persiapan dan pendaftaran	XXXXXXXXXXXXXXXXXXXXXXXXXXXX											
9.	Persiapan dan pendaftaran	XXXXXXXXXXXXXXXXXXXXXXXXXXXX											Tim Kebersamaan NVRC
	Persiapan dan pendaftaran	XXXXXXXXXXXXXXXXXXXXXXXXXXXX											
10.	Persiapan dan pendaftaran	XXXXXXXXXXXXXXXXXXXXXXXXXXXX											Tim Kebersamaan NVRC
	Persiapan dan pendaftaran	XXXXXXXXXXXXXXXXXXXXXXXXXXXX											

表15 職業評価・指導部門のスタッフ研修

CURRIKULUM OF VOCATIONAL GUIDANCE AND ASSESSMENT TRAINING
AT PRSBD PROF. DR. SOEHARSO
SURAKARTA

- =====
1. Guideline of the Director of PRSBD Prof. Dr. Soeharso Surakarta
 2. Opening Ceremony
 3. Rehabilitasi System in Indonesia
 4. Introduction of Japan Vocational Guidance and Assessment
 5. 1997's Law Number 4
 6. Rehabilitation Philosophy
 7. Case Conference
 8. Project Administration
 9. Project Administration
 10. Planning
 11. DUP/DUK Arrangment
 12. Recruitment System
 13. Billeling and Accommodation System of Client
 14. Implementation of Recruitment Activity Step of Technical Cooperation Programme
 15. Client Selective Implimentation Practice
 16. Ethics of Handling the People With Disability Rehabilitation
 17. Case Work Guidande for Living
 18. Counter measures for Environmental at Working Place
 19. Psychological Evaluation and Guidance of Assessment
 20. Recruitment Practice
 21. Working Skill Implementation
 22. Introduction of Hand-Book, Curriculum, Tool, and Evaluation System
 23. How to Evaluate Physically Function
 24. Intelligency Test
 25. Character Test
 26. Vocational Ability
 27. Placement Design of People With Disability System
 28. Vocational Assessment Practice
 29. Physical and Social test Ability Practice
 30. Vocational Aptitude Test Pracrlice
 31. Case Conference Practice
 32. Study Comperative of Vocational Assessment
 33. Writing of Working Paper
 34. Seminar
 35. Post test
 36. Closing Ceremony

DUP : Project Arrangment List

DUK : Activity Arrangment List

Designed By

PRSBD Staffs and JICA Experts Team

表16 社会省による職業指導・評価計画

SCHEDULE FOR RECRUITMENT OF CLIENT AT FIRST TIME
IN NVRC - CIBINONG BOGOR

NO	ACTIVITIES/TIME	DEC'97	JAN'98	FEB'98	MAR'98	APRIL'98	MAY'98	JUNE'98	JULY'98	AUGUST'98	SEPT'98	EXPLAIN
1	INFORMATION ABOUT NVRC SENT THE PHYSICALLY REHA BILITATION, SOLO RC, LDK'S, NGO CENTRIS											
2	AN ANNOUNCEMENT TO THE ABOUT PHOCES AND OPPORTUNITY OF TRAINING FOR CLIENT IN NVRC-CIBINONG											
3	FIRST SELECTION DOCUMENTATION ADMINISTRATIVE AND DISABILITY PROBLEMS											
4	SECOND SELECTION ABOUT ACHIEVEMENT & PROCESTENT											
5	ENTRANCE ANNOUNCEMENT, REGISTRATION AND VOCATIONAL ASSESSMENT FOR FIX CANDIDATE											
6	VOCATIONAL TRAINING IN NVRC CIBINONG FOR COMPUTER AND TEXTILE WORK 40 CLIENTS											

ULI 0011, WK 4

NOTES : ALL CLIENT ALREADY HAVE A BASIC SKILL AND FILING WHEN THEY JOIN THE PARTI / LDK / RC REHABILITATION PROGRAMS AND THE STAF INCUBATOR IN THIS MATTER PLANNED BE TRAINED AN NOVEMBER 1997

(3) ネットワークの形成—NVRCを機能させるために—

NVRCがその対象を全インドネシアに求める場合、いかに地方の関係機関、関係団体等と機能的な連携・ネットワークを形成できるかが大きなポイントである。募集活動、職業評価、就職活動を進めていくうえで、これらの関係機関の協力が得られないとしたならば、NVRCは地方の一施設で終わってしまう可能性が高い。現在、1989年の連携要項、1997年2月に成立した障害者法等に基づいて、このネットワーク作りに向けてソロRCにおいて関係団体に対し趣旨説明及び意向調査を行い、おおむねその趣旨については理解が得られ、協力の意向を確認しているが、まだ理念の部分でとどまっており、実質的な動きは見られない。

今後、就職活動に関してはソロRCにおいて中部ジャワ地区を中心に社会省州事務所、労働事務所、事業主団（APIND）等とネットワークを形成し、それを活用した就職活動の展開を計画しているが、この活動を社会省が主体となって全国的な動きへと拡大し、併せて募集・評価部門についても全国的なネットワーク形成へ向けての取組みを始めていかないとNVRCの円滑な運営は望めない。

(4) 機材供与

募集部門、就職部門から要望のある機材等については表17に示すとおり。また、評価部門から要望のある機材については表18のとおり。要求数については無償で既に供与が決まっているものも含めた数字である。

評価部門が要求している各種検査機器については、地方において職業評価を担当することになる各PANTIへの整備をも含めた数字であり、これについてはインドネシア側から強い要望があり、NVRCの評価活動を行っていくうえでは整備が不可欠である。

表17 募集・就職部門の要望機材

機材名	募集部門	就職部門	要求理由
コンピュータ（デスクトップ）	1	—	訓練生のデータ登録・管理
〃（ノートタイプ）	1	1	〃
コンピュータ周辺機器	1	1	〃
カメラ	1	1	訓練生の記録
ビデオ	—	1	〃
テープレコーダー（携帯用）	1	1	〃
自動車（4WD）	1	1	訓練生の募集・就職活動
〃（大型バス）	—	1	訓練生の就職・職場見学
オートバイ	—	1	訓練生の就職活動
寮管理のための内線	1	—	寮管理
ファイルキャビネット	1	—	訓練生データ保存
ファイル	1	—	訓練生のデータ記録
コピー機	1	—	書類・資料作成

表18 評価部門の需要機材

DAFTAR KEBUTUHAN PERALATAN VOCATIONAL ASSESSMENT UNTUK NVRC CIBINONG DAN PANTI-PANTI TERMINAL.

NO.	N A M A	SPESIFIKASI	JUMLAH	KETERANGAN
1.	Intelligent Test	WAIS	11	NVRC : 5 PT. : 6X1=6
2.	Height Meter		8	NVRC : 2 PT. : 6X1=6
3.	Digital Meter Weight		8	NVRC : 2 PT. : 6X1=6
4.	Back Muscle Dynamo Meter		8	NVRC : 2 PT. : 6X1=6
5.	Grip Dynamo Meter		8	NVRC : 2 PT. = 6X1=6
6.	Vital Capacity Meter		8	NVRC : 2 PT. = 6X1=6
7.	TestType Obyecct Chart 視力検査		8	NVRC : 2 PT. = 6X1=6
8.	Screening Audio Meter		8	NVRC : 2 PT. = 6X1=6
9.	General Vocational Aptitude Test		11	NVRC : 5 PT. : 6X1=6
10.	Test Card for Colour Blindness		8	NVRC : 2 PT. : 6X1=6
11.	Stop Watch		11	NVRC : 5 PT. : 6X1=6
12.	Calculator		11	NVRC : 5 PT. = 6X1=6
13.	TV Colour	24 "	7	NVRC / PT:6X1=6
14.	Personal Computer		7	Untuk Administrasi NVRC : 1 PT. : 6X1=6
15.	Camera Photo		7	NVRC : 1 PT. : 6X1=6

NO.	N A M A	SPEKIFIKASI	JUMLAH	KETERANGAN
16	Vedeo Player		7	NVRC / PT:2X1=6
17	Video Camera		1	NVRC : 1
18	Over Head Proyektor (O H P)		1	NVRC : 1
19	Personal Computer		5	Untuk Work Sample Assesment. NVRC : 5
20	Sewing Machine/ Hight Speed		5	Untuk Work Sample Assesment. NVRC. : 5
21	Elektronik Tool kit		5	Untuk Work Sample Assesment NVRC : 5
22	Small Engine Tool kit		5	Untuk Work Sample Assesment NVRC : 5
23	Meja Gambar (50x75x120)		5	Untuk Work Sample Assesment NVRC : 5

Catatan :

PT. : Pantii Terminal ;

- 1). PSBD. Cengkareng;
- 2). PSBD. Bangil ;
- 3). PSBD. Palembang;
- 4). PSBD. Ujungpandang.

(5) 日本の協力範囲・形態

1) Technical Transfer in Vocational Guidance/Assessment

事前調査（1997年4月）において確認されている職業指導・評価にかかるACTIVITIES及び技術移転内容は次のとおりである。

- ① To improve the vocational guidance/assessment system developed at the National Rehabilitation Center, Solo (RC Solo)
 - a) To develop the recruitment system for wide area
 - b) To revise the selection method and make the selection standard
 - c) To develop the placement system for wide area
- ② To try out, assess and revise the system mentioned above

以上の内容について以下のとおり変更を加えたい。

[追加]

- ① To try out the vocational guidance/assessment system developed at the National Rehabilitation Center, Solo (RC Solo)
 - a) To try out the recruitment system for wide area
 - b) To try out the selection system for wide area
 - c) To try out the placement system for wide area

- ② To improve the vocational guidance/assessment system developed at the National Rehabilitation Center, Solo (RC Solo)
 - a) To improve the recruitment system for wide area
 - ※追加 b) To improve the selection system for wide area
 - c) To revise the selection method and make the selection standard
 - d) To improve the placement system for wide area
- ③ To try out, assess and revise the system mentioned above

変更理由は次のとおりである。

a) ①について

ソロRCにおいて、3年間のプロジェクト活動の成果として、NVRCの業務を想定した募集、評価、就職システムを考案し、マニュアル化している。第1フェーズ、第2フェーズの連続性・継続性を考えれば、NVRCプロジェクト活動の第1段階となる。

b) ②について

職業評価については、評価方法、選考基準の作成・改定等の職業評価の内容に関する活動に加え、インドネシア全土という広域を対象として職業評価システムの構築も不可欠と考える。

2) 暫定実施計画（5年間）

暫定実施計画については、新たに追加した活動を含めて表19のとおり。

① a)、b)の活動については前半部分を点線で表しているが、これは第1期生の募集・評価活動に関しては、インドネシア側で十分な体制が整わず、変則的な募集・評価活動にならざるを得ないことを想定してのものである。

表19 職業指導・評価分野の暫定実施計画

TENTATIVE SCHEDULE OF IMPLEMENTATION (TECHNICAL TRANSFER IN R&D)

Input/Fiscal Year	1997/12~1998/03	1998/04~1999/03	1999/04~2000/03	2000/04~2001/03	2001/04~2002/03	2002/04~2003/12
Year	First Year	Second Year	Third Year	Fourth Year	Fifth Year	
Term of Technical Cooperation						
1. To try out the vocational guidance/assessment system developed at the RC						
a) To try out the recruitment system for wide area	-----	-----				
b) To try out the selection system for wide area	-----	-----				
c) To try out the placement system for wide area	-----	-----				
2. To improve the vocational guidance/assessment system developed at RC Solo						
a) To improve the recruitment system for wide area			-----	-----		
b) To improve the selection system for wide area			-----	-----		
c) To revise the selection method and make the selection standard			-----	-----		
d) To improve the placement system for wide area			-----	-----		
3. To try out, assess and revise the system mentioned above						

(6) 職業指導・評価関連施設

・Panti Sosial Bina Daksa “Satria Utama” (身体障害者リハビリテーション施設)

1) 施設概要

全国に5か所ある身体障害者リハビリテーション施設(州レベル)の一つで、ジャカルタ西部に位置する。現在、50名の職員を有し130名の身体障害者が入所している。入所生の年齢範囲は15歳から35歳。

訓練コースとしては縫製、電子、溶接、自転車修理、バイク修理、義肢義足、印刷等のコースを設定しており、訓練期間は1年間である。

訓練生は入所時に簡単な能力検査を受ける。検査の内容は学科試験、社会生活能力調査等であり、どの訓練コースにあてるかについては、本人の希望に加え入所時に実施した検査結果及びそれぞれの訓練コースを体験させるなかで適性の把握を行い、その結果に基づき適切なコース設定を行っている。

いずれの訓練内容も技術的には古いものが多く、その技術をもって一般労働市場に参入させることは一部のコースを除き無理がある。

2) 訓練終了後の状況

1年間の訓練機関を終了後、3か月程度の実施制度(マガン)を活用し就職を目指す。指導員の話によると70%から80%の就職率を達成しているということであるが、就職形態としては自営が多く含まれるようである。実施期間中は無給であり、実習中のアパート、生活費等についてはPANTIで面倒を見る。

職業開拓については直接企業を訪問し開拓を行っている。就職活動を担当する措置課の職員のなかにはベーエスカーと呼ばれる職員が2名おり、この職員はポイント制で昇級・昇進するシステムとなっている。したがって、事業所を開拓するごとにポイントを獲得することができるので、意欲的に職場開拓を行っている。

3-3 調査研究

(1) 調査研究計画

日本側が示している協力可能分野6分野に基づき6本の研究計画が示された。

1) 研究テーマ

研究テーマは以下に示すとおり1997年7月のソロ・プロジェクト終了時評価調査時にインドネシア側が提示した研究テーマのままとなっている。各研究ごとに研究目的、実施体制、研究方法、研究期間、予算構成等がそれぞれ記載されているが、具体的な研究活動へと進めていくためにはさらに十分な検討が必要である(詳細は表2のとおり)。

① Study on the physically disabled issues (1998-1999) ※年度

- ② Study on labour market issues (1999-2000)
- ③ Study on job opportunities issues (1999-2001)
- ④ Study on appropriate vocational training course for the disabled (2000-2002)
- ⑤ Study on evaluation and analysis of vocational training results (2000-2002)
- ⑥ Study on data processing (2000-2002)

2) 研究計画の妥当性

ソロ・プロジェクト終了時評価調査において、調査研究計画の作成及び提示をインドネシア側に依頼したのを受けて今回の研究計画が提示された。この計画は、長期調査団員の訪問を目前に控え、社会省からソロRCに対して作成の指示があり、NVRCの研究業務とは直接関係のないソロRCの一職員が急ぎよ作成したものである。社会省及びNVRCの調査研究スタッフはこの調査計画の作成には全く携わっていない。

このような背景及び実際に研究計画に目を通して分かるように、今回提示された調査研究計画はかなり漠然としたものであり、これを現段階でNVRCの研究計画の一つの指針とすることには相当の無理がある。この計画を土台にし、今後さらに社会省及びNVRC調査研究スタッフとの間で十分な内容・計画の検討を行い、詳細を詰めていく必要がある。

(2) 調査研究 (R & D) スタッフ

1) スタッフの経歴

現在、研修を受講している調査研究スタッフ候補は4名(男性1名、女性3名)。この4名にかかる履歴は表21のとおりであり、いずれも社会省の管轄する州事務所、福祉施設、リハビリテーション施設に勤務した経験を持つ。ただし、調査研究業務に関しては全く経験がなく、論文等の作成については大学の卒業論文を書いたことがある程度である。

2) 研修内容

現在、ソロにあるスプラスマル大学の教員を講師に招き、調査研究活動に関係する研修を受講している。研修期間は7月14日から9月9日までの約2か月間。研修内容の詳細は表-22のとおりである。

3) 今後の職員配置計画

現在、研修を受講している4名のスタッフについて、NVRCで行う調査研究活動をどこまで主体的に実施できる能力を持っているのか疑問が残る。事実、現在研修の講師を努めているスプラスマル大学の教員からは、「調査研究部門に配属されても何を行ったらよいのか分からないのではないか」とのコメントがあった。

NVRCの調査研究活動を円滑に進めていくためには、今後リクルートされるであろう残りのスタッフについて、障害に関する知識を持ち、かつ調査研究業務を主導できる研究業務経

験者あるいは同等の知識・技術を有する者を配置する必要があると考える。

これに対してインドネシア側は、現在研修を受講している4名の候補者について上記の問題点があることは既に認識しており、残りの研究員については社会省が所管する研究所から経験者をリクルートし、それらの研究員を中心に研究業務を進めていく計画を持っているとの説明があった。ただし、それらの研究員のNVRCへの配置は早くても1998年度4月以降であり、すべてのスタッフが出揃うのがいつになるのかはまだ明確になっていない。

(3) 研究予算

1) 1998年度予算

今回示された計画によれば、1998年度から調査研究活動を実施する計画となっている。この調査研究の実施に際しては、その研究予算の確保が不可欠であるが、1998年度の予算要求作業については既に終了している。1998年度開始予定の調査研究に関して、その予算的裏づけがどうなっているのか確認が必要である（1998年度予算については既に申請してあるとのソロRCからの説明。ただし、認可の可否は今後にかかっている。認可へ向けて日本側からも社会省に対し働きかけを行う必要がある。後日、1998年度の予算内訳が示された研究予算としてどれだけの予算申請がされているのかは不明であった）。

2) 1999年度予算

1999年度開始予定の調査研究については、日本と同様にその予算要求作業を1998年夏までに行う必要がある。一方で、NVRCの職員体制については、最終的に121名の定員が配置されるのがいつになるのかはまだ定かではなく、しばらくは定員を大きく欠いた状態で業務を行っていくこととなる。調査研究部門についても状況は同様で、このような状況のなか、調査研究にかかる1999年度の予算獲得へ向け、誰が中心となって研究計画を作成し予算要求作業を進めていくのか、今の段階では不明瞭である。

(4) 供与機材

調査研究に関する無償機材供与は一切行われていない。しかし、現実に調査研究活動を進めていくためには、最低限の機材等の整備は必要であり、それをインドネシア側に求めることは難しい。調査研究活動をサポートするためには、日本側による機材供与が不可欠である。

インドネシア側からの要望は以下のとおりである。

- ① コンピュータ及び関連機器（ネットワーク接続も念頭に入れる必要あり）
- ② データ解析等ソフトウェア
- ③ カメラ
- ④ ビデオカメラ及びビデオプレーヤー

- ⑤ テープレコーダー
- ⑥ OHP
- ⑦ 研究関連図書・資料
- ⑧ コピー機等

(5) 日本の協力範囲・形態

1) 基本方針

調査研究部門は、インドネシア国における障害者の状況を踏まえて調査研究を実施し、その結果をインドネシア国政府の政策決定やNVRCの運営に生かしていくべきものであり、インドネシア国政府の意思決定と密接に結びつくべきものである。このことから、その活動内容はインドネシア政府自らが決定すべきであり、日本側としてはその調査研究活動を実施するなかで、インドネシア国側だけで解決できない問題が生じた場合、要請に応じ必要な技術援助を行うことが適当であると考ええる。

2) 研究協力分野

既に日本側が提示している研究協力分野に関して、日本側の技術協力のあり方をより明確にするために、インドネシア側が考えるより具体化された調査研究テーマ・計画を把握することが長期調査の目的の一つであったが、前述のとおり現在の体制でその作業を要求することは困難である。実施協議調査までに現実性のある研究計画の提示を求めることもおそらく難しいであろうし、1)の考え方に従えば、その必要性は乏しい。

日本側としては、従来通り協力分野を示すにとどめ、それ以上の内容については、プロジェクト開始以降のインドネシア側の活動内容をみながら、協力内容を検討していくことが現実的である。

協力分野は以下の各項目が考えられる。

- ① Study on the physically disabled issues
- ② Study on labour market issues
- ③ Study on job opportunities issues
- ④ Study on appropriate vocational training course for the disabled
- ⑤ Study on evaluation and analysis of vocational training results

7月のソロ・プロジェクト終了時評価調査団訪問時にインドネシア側が調査研究部門の活動分野として提示したものは、上記5分野に加え⑥Study on data processingが示されているが、4月の事前調査団訪問時に日本側が技術協力可能分野として提示した内容は上記5分野である。

⑥の扱いについては、その内容が研究を実施するうえでの技術的要素が強く（むしろ技

術移転項目に含まれるべきものである)、研究分野・テーマそのものとはなりにくい性質を帯びているので、研究協力分野からは外すことが適当である。

3) 技術移内容

現在確認されている技術移転内容は以下に示す5項目である。

- ① To make R&D plans
- ② To develop R&D method
- ③ To develop the analysis techniques
- ④ To implement R&D
- ⑤ To evaluate the results of R&D and to reflect them on the activities of NVRC

以上5項目のうち、④To implement R&Dについては、調査研究を実施する主体はあくまでインドネシア側にあることを明示する必要がある。

4) 専門家の派遣

先に述べたように、調査研究部門についてはインドネシア側が主体的に実施することが望ましいことから、専門家の派遣については短期専門家のみとすることが適当である。

その派遣については、上記研究協力分野及び技術移転項目に関して、インドネシア側から具体的要請に基づいて派遣することが適当であるが、基本的には技術移転項目の①から順に移転していくことが望ましい。

5) 日本側受入れ研修

NVRCにおける調査研究活動に対する技術協力として、短期専門家の派遣とともにインドネシア側C/Pに対する日本での受入れ研修に対する要望も強い。この要望に対しては、これまでのプロジェクト協力と同様、日本側として積極的に受入れ体制を整備することが必要である。

6) 暫定実施計画(5年間)

研究計画が定まらない現状において、5年間の各研究分野ごとの技術移転計画を作成することには無理がある。しかし、技術移転項目の内容及び順序性からすると、5年間のプロジェクト期間内に5つある技術移転項目について、表23の暫定実施計画に示すように、①から準備1年ずつ移転していくことが一つの目安となる。

表20 研究テーマ

THE PLANNING OF R & D IN NVRC PROF. DR. SOEHARSO
1998 - 2003

No	Topic	1998/1999	2000	2001	2002	2003	Remark
1.	Study the Physically Disabled Issue						Implemented by Staff of R&D NVRC Cibinong, Senior Staf PRSBO Prof. Dr. Soe-rakarta
2.	Study on Labour Market Issue						Implemented by Staf of R&D NVRC Cibinong, Senior Staf PRSBO Prof. Dr. Soe-harso, Department of Industry
3.	Study on Job Opportunities Issue						Implemented by Staff of R&D NVRC Cibinong, Senior Staf PRSBO Prof. Dr. Soe-harso, Department of Man-power
4.	Study on Appropriate Vocational Training Course for Disabled						Implemented by Staff of R&D NVRC Cibinong, Senior Staf PRSBO Prof. Dr. Soe-harso, Department of Man-power
5.	Study on Evaluation and Analysis of Vocational Training Result						Implemented by Staff of R&D NVRC Cibinong, Senior Staf PRSBO Prof. Dr. Soe-harso, Institute Pertanian Bogor
6.	Study on Data Processing						Implemented by Staff of R&D NVRC Cibinong, Senior Staf PRSBO Prof. Dr. Soe-harso, Institute Teknologi Bandung

STUDY THE PHYSICALLY DISABLED ISSUE

1. The Aim and Propose

- (1) The research is an applied study to know the detail situation about disability in the field correlation with the occupation.
- (2) Collecting data to people with disability who has age between 15 - 45 year old to the labour market in Indonesia.

2. The Implementation Program

The implementation program which has done by R&D NYRC Cibinong staff and the Senior Staff NRC Prof. Dr. Soeharso Surakarta.

3. Research activities :

- (1) Working Group Team : NYRC Prof. Dr. Soeharso Cibinong staff
NRC Prof. Dr. Soeharso Surakarta staff
- (2) Population data : Structure Organization Ministry of Social Affairs.
Provincial Social Department
Local Social Office
Sub District of Social Worker
Volunteer of Village of Social Worker
- (3) Instrument : Research Desaigned by R&D NYRC
Prof. Dr. Soeharso, Cibinong' Staff
- (4) Analyses : Research Processing by R&D NYRC
Prof. Dr. Soeharso, Cibinong' Staff
- (5) Seminar : It is to be done before the last research reporting, attending by participants from Ministry of Home Affairs, Ministry of Industry and Merchance, Ministry of Manpower, Cevest, NRC Solo, Ministry of Social Affairs, Indonesian Association of Employers (Apindo), NGO's.
- (6) Reporting : The last research reporting could be done after recieving the seminar's recommendation

4. Persons in Charge : The Division of R&D NYRC
Prof. Dr. Soeharso, Cibinong.

5. Duration : 1998 - 2000 (2 years)

6. Need of Facility : Under discussion

7. Budget : Based on every research capacity,

- | | |
|---|-----|
| (1) Honorarium researcher (senior, junior, technician)..... | 45% |
| (2) Raw Material..... | 15% |
| (3) Tool or machine..... | 15% |
| (4) Transportation..... | 30% |
| (5) Others..... | 5% |
| | |

100%

STUDY ON LABOUR MARKET ISSUE

1. The Aim and Propose

- (1) The research is an applied study to know the detail situation about the human resource of people with disability in the factory.
- (2) Study to the methods for placement.
- (3) Occupational Analysis for people with disability

2. The Implementation Program

The implementation program which has done by R&D NVRC Cibinong staff and the Senior Staff NRC Prof. Dr. Soeharso Surakarta, and Ministry of Industry and others institution.

3. Research activities :

- (1) Working Group Team : NVRC Prof. Dr. Soeharso Cibinong staff, Ministry of Manpower, Ministry of Industry and Indonesian Association of Employer
- (2) Population data : All of the factory in Indonesia , lead by the Ministry of Industry
- (3) Instrument : Research Designed by R&D NVRC Prof. Dr. Soeharso, Cibinong' Staff and Ministry of Industry
- (4) Analyses : Research Processing by R&D NVRC Prof. Dr. Soeharso, Cibinong' Staff and Ministry of Industry
- (5) Seminar : It is to be done before the last research reporting, attending by participants from Ministry of Home Affairs, Ministry of Industry and Merchance, Ministry of Manpower, Cevest, NRC Solo, Ministry of Social Affairs, Indonesian Association of Employers (Apindo), NGO's.
- (6) Reporting : The last research reporting could be done after receiving the seminar's recommendation

4. Persons in Charge : The Division of R&D NVRC Prof. Dr. Soeharso, Cibinong.

5. Duration : 1999 - 2001 (2 years)

6. Need of Facility : Under discussion

7. Budget : Based on every research capacity,

(1) Honorarium researcher (senior, junior, technician).....	45%
(2) Raw Material.....	15%
(3) Tool or machine.....	15%
(4) Transportation.....	30%
(5) Others.....	5%

	100%

STUDY THE JOB OPPORTUNITIES ISSUE

1. The Aim and Propose

- (1) Based on the Law No 4 Issued 1997, this research used to know the size of factory (small, medium and large) which has implemented the quota system in Indonesia.
- (2) To get the data of people with disability which has been placed in the factory or versi versa.

2. The Implementation Program

The implementation program which has done by R&D NVRC Cibinong staff and the Senior Staff NRC Prof. Dr. Soeharso Surakarta, other institutions which mentioned in the Law No. 4 Issued 1997. The Leading Sector the Ministry of Manpower.

3. Research activities :

- (1) Working Group Team : NVRC Prof. Dr. Soeharso Cibinong staff
NRC Prof. Dr. Soeharso Surakarta staff
and Ministry of Manpower
- (2) Population Data : Ministry of Manpower
Ministry of Industry
- (3) Instrument : Research Desaigned by R&D NVRC
Prof. Dr. Soeharso, Cibinong' Staff and
Law Division of Ministry of Manpoer
- (4) Analyses : Research Processing by R&D NVRC
Prof. Dr. Soeharso, Cibinong' Staff and
Law Diovision of Ministry of Manpower
- (5) Seminar : It is to be done before the last
research reporting, attending by
participants from Ministry of Home
Affairs, Ministry of Industry and
Merchance, Ministry of
Manpower, Cevest, NRC Solo, Ministry of
Social Affairs, Indonesian Association
of Employers (Apindo), NGO's.
- (6) Reporting : The last research reporting could be
done after recieving the seminar's
recommendation

4. Persons in Charge : The Division of R&D NVRC
Prof. Dr. Soeharso, Cibinong.

5. Duration : 1999 - 2002 (3 years)

6. Need of Facility : Under discussion

7. Budget : Based on every research capacity,

- | | |
|---|-----|
| (1) Honorarium researcher (senior, junior, technician)..... | 45% |
| (2) Raw Material..... | 15% |
| (3) Tool or machine..... | 15% |
| (4) Transportation..... | 30% |
| (5) Others..... | 5% |

100%

STUDY ON APPROPRIATE VOCATIONAL TRAINING COURSE
FOR DISABLED

1. The Aim and Propose

- (1) The research is an applied study to know the detail situation about degree of disability in the field
- (2) To study about the curriculum of 5 type of vocational training and to predict the kind of the new vocational training in the future in Indonesia.
- (3) To study the about the effective and effisien curriculum correlation with the quota system in Indonesia.

2. The Implementation Program

The implementation program which has done by R&D NVRC Cibinong staff and the Senior Staff NRC Prof. Dr. Soeharso Surakarta and all others institution.

3. Research activities :

- (1) Working Group Team : NVRC Prof. Dr. Soeharso Cibinong staff
NRC Prof. Dr. Soeharso Surakarta staff
- (2) Population data : Factory, Rehabilitation Institution,
in Indonesia both run by Government
or NGO
- (3) Instrument : Research Desaigned by R&D NVRC
Prof. Dr. Soeharso, Cibinong' Staff
- (4) Analyses : Research Processing by R&D NVRC
Prof. Dr. Soeharso, Cibinong' Staff
- (5) Seminar : It is to be done before the last
research reporting, attending by
participants from Ministry of Home
Affairs, Ministry of Industry and
Merchance, Ministry of
Manpower, Cevest, NRC Solo, Ministry of
Social Affairs, Indonesian Association
of Employers (Apindo), NGO's.
- (6) Reporting : The last research reporting could be
done after recieving the seminar's
recommendation

4. Persons in Charge : The Division of R&D NVRC
Prof. Dr. Soeharso, Cibinong.

5. Duration : 2000 -2003 (3 years)

6. Need of Facility : Under discussion

7. Budget : Based on every research capacity,

- (1) Honorarium researcher (senior, junior, technician).....45%
- (2) Raw Material.....15%
- (3) Tool or machine.....15%
- (4) Transportation.....30%
- (5) Others.....5%

100%

**STUDY ON EVALUATION AND ANALISIS OF VOCATIONAL
TRAINING RESULT**

1. The Aim and Propose
The research is an applied study to known the detail situation about evaluation system of vocational rehabilitation with effective and effisien.
2. The Implementation Program
The implementation program which has done by R&D NVRC Cibinong staff and the Senior Staff MRC Prof. Dr. Soeharso Surakarta, Institute Pertanian Bogor.
3. Research activities :
 - (1) Working Group Team : NVRC Prof. Dr. Soeharso Cibinong staff
MRC Prof. Dr. Soeharso Surakarta staff
 - (2) Population data : Factory, Rehabilitation Institute both run by the Government or NGO
 - (3) Instrument : Research Desaigned by R&D NVRC Prof. Dr. Soeharso, Cibinong' Staff and Institute Pertanian Bogor
 - (4) Analyses : Research Processing by R&D NVRC Prof. Dr. Soeharso, Cibinong' Staff and Institute Pertanian Bogor
 - (5) Seminar : It is to be done before the last research reporting, attending by participants from Ministry of Home Affairs, Ministry of Industry and Herchance, Ministry of Manpower, Cevest, MRC Solo, Ministry of Social Affairs, Indonesian Association of Employers (Apindo), NGO's.
 - (6) Reporting : The last research reporting could be done after recieving the seminar's recommendation
4. Persons in Charge : The Division of R&D NVRC Prof. Dr. Soeharso, Cibinong.
5. Duration : 2000 - 2003 (3 years)
6. Need of Facility : Under discussion
7. Budget : Based on every research capacity,

(1) Honorarium researcher (senior, junior, technician).....	45%
(2) Raw Material.....	15%
(3) Tool or machine.....	15%
(4) Transportation.....	30%
(5) Others.....	5%
	100%

STUDY ON DATA PROCESSING

1. The Aim and Propose

(1) The research is an applied study to know the detail situation about data network system of disability in Indonesia.

2. The Implementation Program

The implementation program which has done by R&D NVRC Cibinong staff and the Senior Staff NRC Prof. Dr. Soeharso Surakarta, and Institute Teknologi Bandung.

3. Research activities :

- (1) Working Group Team : NVRC Prof. Dr. Soeharso Cibinong staff
NRC Prof. Dr. Soeharso Surakarta staff
- (2) Population data : Rehabilitation Centre, Factory and other
institutions etc.
Social Affairs.
- (3) Instrument : Research Desaigned by R&D NVRC
Prof. Dr. Soeharso, Cibinong' Staff and
Institute Teknologi Bandung
- (4) Analyses : Research Processing by R&D NVRC
Prof. Dr. Soeharso, Cibinong' Staff and
Institute Teknologi Bandung
- (5) Seminar : It is to be done before the last
research reporting, attending by
participants from Ministry of Home
Affairs, Ministry of Industry and
Merchance, Ministry of
Manpower, Cevest, NRC Solo, Ministry of
Social Affairs, Indonesian Association
of Employers (Apindo), NGO's.
- (6) Reporting : The last research reporting could be
done after recieving the seminar's
recommendation

4. Persons in Charge : The Division of R&D NVRC
Prof. Dr. Soeharso, Cibinong.

5. Duration : 2000 - 2003 (3 years)

6. Need of Facility : Under discussion

7. Budget : Based on every research capacity,

- (1) Honorarium researcher (senior, junior, technician)..... 45%
- (2) Raw Material..... 15%
- (3) Tool or machine..... 15%
- (4) Transportation..... 30%
- (5) Others..... 5%

100%

表21 調査研究 (R&D) スタッフ履歴

CURRICULUM VITAE OF TRAINEES.
TRAINING OF NVRC CIBINONG CANDIDATE STAFFS
AT PRSBD PROF. DR. SOEHARSO SURAKARTA
1997/1998

=====

1. Name : Udin Sapudin

2. Birth of Place :

3. Official Registry Number : 170017698

4. Occupation : Social worker

5. Address

a. Office : Visually Impaired Institution
Ciung Wanara, Cibinong, West-Java

b. Residence :

6. The Latest Education (Title, Course)

a. Internal : Teacher Education of Special School
Bandung, West-Java

b. External :

**CURRICULUM VITAE OF TRAINEES,
TRAINING OF NVRC CIBINONG CANDIDATE STAFFS
AT PRSBD PROF. DR. SOEHARSO SURAKARTA
1997/1998**

=====

1. Name : Dewi Lestriyani Panca Astuti
2. Birth of Place : Jakarta, 22 Maret 1961
3. Official Registry Number : 170010320
4. Occupation : Section of Job Selection Staff
5. Address
- a. Office : National Rehabilitation Center for People With
Disabilities (PRSBD) Prof. Dr. Soeharso, Surakarta
- b. Residence :
6. The Latest Education (Title, Course)
- a. Internal : Social Welfare Institute
Bandung, West-Java
- b. External :

CURRICULUM VITAE OF TRAINEES..
TRAINING OF NVRC CIBINONG CANDIDATE STAFFS
AT PRSBD PROF. DR. SOEHARSO SURAKARTA
1997/1998

=====

1. Name : R. Erna Rumia Septiandini
2. Birth of Place : Tanjung karang, 20 September 1967
3. Official Registry Number : 170028156
4. Occupation : Section Staff of Data Colection
5. Address
- a. Office : Social Department at Province
Teluk Betung, Bandar Lampung-Sumatera
- b. Residence :
6. The Latest Education (Title, Course)
- a. Internal : Teacher Education of Special School
Bandung, West-Java
- b. External :

CURRICULUM VITAE OF TRAINEES ..
TRAINING OF NVRC CIBINONG CANDIDATE STAFFS
AT PRSBD PROF. DR. SOEHARSO SURAKARTA
1997/1998

=====

1. Name : L e s t a r i
2. Birth of Place : Wonogiri, 17 September 1965
3. Official Registry Number : 170026760
4. Occupation : Social Worker of Sub District
5. Address
- a. Office : Social Department at Province
South-Barito, Central Kalimantan
- b. Residence :
6. The Latest Education (Title, Course)
- a. Internal : Social Welfare Institute
Bandung, West-Java
- b. External :

表22 調査研究スタッフの研修計画

SCHEDULE OF RESEARCH AND DEVELOPMENT TRAINING

NO.	DAY/DATE	TIME	MATERIALS
1	Monday 14 July 1997	07.00-07.30 07.30-09.00 09.00-10.30 10.30-11.00 11.00-12.30 12.30-13.30 13.30-14.15 14.15-15.00	Opening Philosophy of People With Disability Rehabilitation 1997's Law, Number 4 Break People With Disability Rehabilitation System Break JICA Project at PRSBD Prof. Dr. Soeharso Vocational Guidance and Assessment System in Japan
2	Tuesday 15 July 1997	07.30-10.30 10.30-11.30 11.30-13.30 13.30-15.00	Basic Concept of Research The Meaning of Research for Science Development, Institution, and Policy Break Continued (The Meaning of...)
3	Wednesday 16 July 1997	07.30-10.30 10.30-11.00 11.00-12.30 12.30-13.30 13.30-15.00	Identification and Problem Formulation Technique Break Library Study, Frame of Thinking, Hypothesis, Operational Definition Break Continued (Library Study...)
4	Thursday 17 July 1997		Holiday
5	Friday 18 July 1997	07.30-10.30 10.30-11.00 11.00-12.30 12.30-13.30 13.30-15.00	Sampling Technique in Research Break Instrument Development and Measuring Scale in Research Break Continued (Instrument development...)
6	Saturday 19 July 1997	07.30-10.30 10.30-11.00 11.00-12.30 12.30-13.30 13.30-15.00	Instrument, Validity, and Reliability Test Break Technique of Data Collection Research Break Continued (Technique of...)
7	Monday 21 July 1997	07.30-10.30 10.30-11.00 11.00-12.30 12.30-13.30 13.30-15.00	Data Analysis Technique (Descriptive, Quantitative) Break Schedule and Research Budget Arrangement Break Continued(Schedule and...)

8	Tuesday 22 July 1997	07.30-10.30 10.30-11.00 11.00-12.30 12.30-13.30 13.30-15.00	Abstract, Executive Rešume, Complete Report and Research Recommendation Arrangement Technique Break Quantitative Research and its Application in Relation to People With Disability Rehabilitation Break Continued (Quantitative Research and...)
9	Wednesday 23 July 1997	07.30-	Structured Assignment I : " Identification, Problem Formulation, Reference, Frame of Thinking, Hypothesis Arrangement and Operational Definition "
10	Thursday 24 July 1997		Presentation, Discussion and Review of Structured Task I
11	Friday 25 July 1997		Structured Assignment II : " Research Instrument Arrangement "
12	Saturday 26 July 1997		Presentation, Discussion and Review of Structured Task II
13	Monday 28 July		Structured Assignment III : " Validity Analysis and Instrument Reliability test "
14	Tuesday 29 July 1997		Presentation, Discussion and Review of Structured Task III
15	Wednesday 30 July 1997		Structured Assignment IV : " Data Collection "
16	Friday 1 August 1997		Presentation, Discussion and Review of Structured Task IV
17	Saturday 2 August 1997		Structured Assignment V : " Field Data Analysis "
18	Monday 4 July 1997		Presentation, Discussion and 5th of Structured Task Review
19	Tuesday 5 August 1997		Structured Assignment VI : " Report Arrangement "
20	Wednesday 6 August 1997		Presentation, Discussion and Review of Structured Assignment VI
21	Thursday-Saturday 7-9 August'91997		Self Assignment : " Proposal of Individual Research Arrangement"

22	Monday 11 August' 97		Presentation, Discussion and Review of Individual Research Proposal Arrangement
23	Tuesday-Wed. 12 -13 August 1997		Self Assignment : ' Proposal and Final Improvement '
24	Thursday 14 August' 97		Self Assignment : " Arrangement of Individual Research Instrument "
25	Friday-Mon. 15 -18 August 1997		Self Assignment : " Instrument Test, Data Analysis, Revision and Instrument Finale "
26	Tuesday 19 August' 97		Presentation, Discussion and Review of Individual Research Instrument Result
27	Wednesday 20 August' 97		Comparative Study I (Guided)
28	Thursday-Mon. 21-25 August 1997		Self Assignment : " implementation of Field Data Collection of Individual Research "
29	Tuesday-Fri. 26-29 August 1997		Self Assignment : " Analysis of Individual Research Data "
30	Saturday 30 August' 97		Comparative Study II (Guided)
31	Monday-Thurs. 1-4 September 1997		Self Assignment : " Arrangement of Last Report Draft of Individual Research "
32	Friday 5 Sep. 1997		Presentation, Discussion and Review of Individual Research Report Draft "
33	Saturday 6 Sep. 1997		Self Assignment : ' Improvement and Final Report '
34	Sunday 7 Sep. 1997		Self Assignment : " Arrangement of Executive Summary of Individual Research Result "
35	Monday 8 Sep. 1997		Presentation, Discussion and Executive Summary Review of Individual Research Result "
36	Tuesday 9 Sep. 1997		Comparative Study III (Guided) and Closing

表23 調査研究部門の暫定実施計画

TENTATIVE SCHEDULE OF IMPLEMENTATION (TECHNICAL TRANSFER IN R&D) **

Input/Fiscal Year	1997/12~1998/03	1998/04~1999/03	1999/04~2000/03	2000/04~2001/03	2001/04~2002/03	2002/04~2003/12
Year	First Year	Second Year	Third Year	Fourth Year	Fifth Year	
Time of Technical Cooperation						
a) To make R&D plans				
b) To develop R&D method				
c) To develop the analysis techniques				
d) To implement R&D						
e) To evaluate the results of R&D and to reflect them on the activities of SVRC				

(7) 調査研究関連施設

1) Biro Pusat Statistik (Central Bureau of Statistics : 中央統計局)

BPSは大統領直轄の政府機関であり、以下に示す分野の統計活動を行っている（農業、鉱業、工業、通信、貿易、人口、社会、労働、経済、国家収入、教育、宗教等）。同時に、統計データの統一性を保つために、すべての中央行政組織、地方行政組織が行っている統計作業のコーディネートも担当している。

インドネシアに関する各種基礎統計はすべてここで入手することができ（出版物として販売している他にインターネット上にホームページ（<http://www.bps.go.id/>）を開設している）、逆にいえば、ここで把握していない統計データについては他にもないということになる。

① 組織図は図3のとおりである

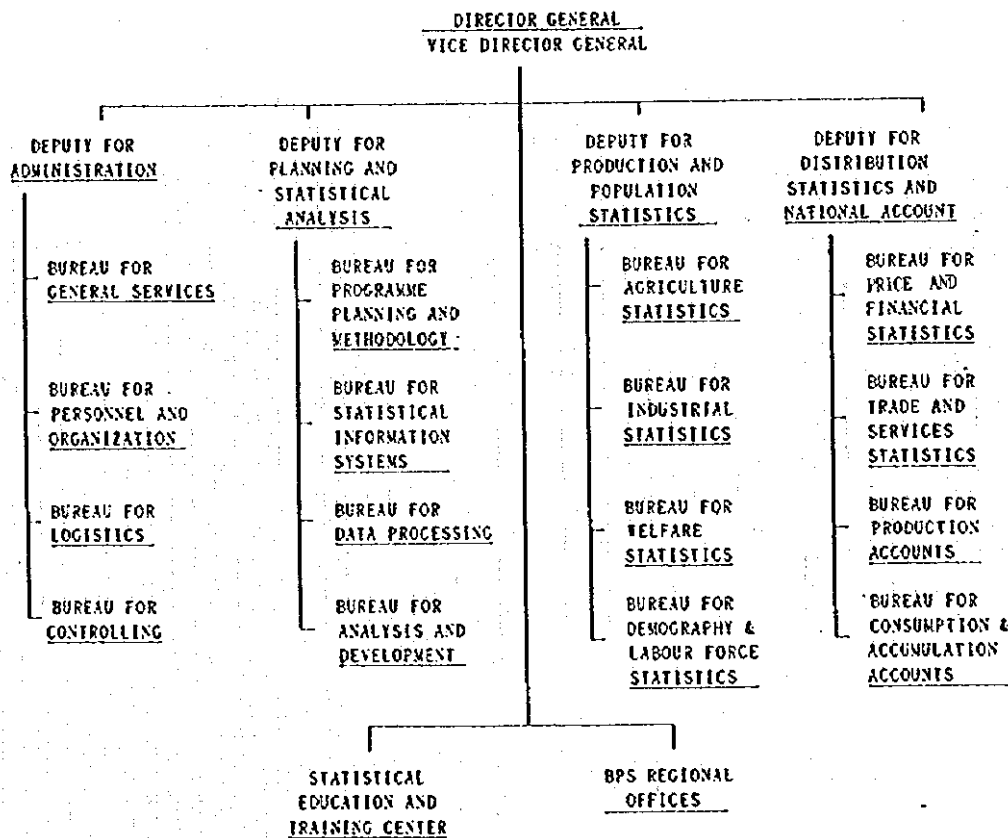


図3 BPS組織図

② BPSの発行している「基礎統計集」の大項目は次のとおり。

1. 地理的状況、2. 気候、3. 人口と就業、4. 社会事情、5. 農業、6. 製造・鉱業・エネルギー・建設、7. 外国貿易、8. 運輸・通信、9. 財政物価、10. 消費、11. 国民所得、

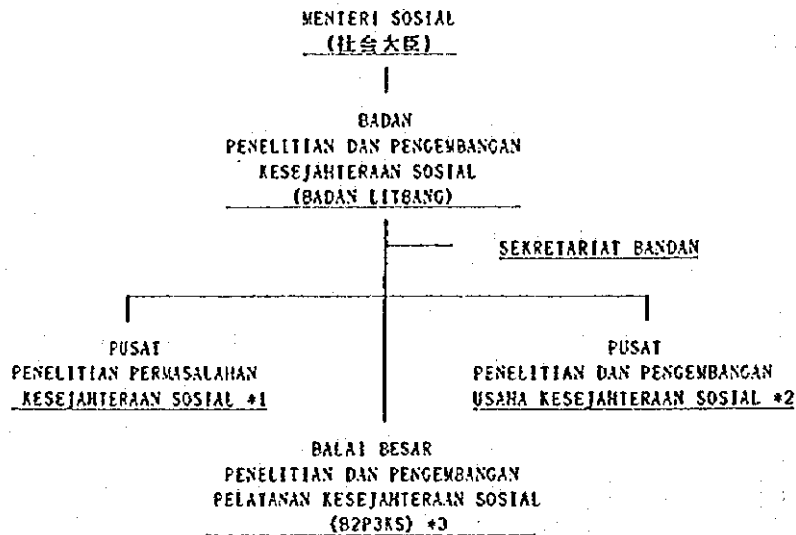
12. 国際比較

また、それぞれの項目ごとに詳細版が出版されている。

2) Badan Penelitian dan Pengembangan Kesejahteraan Sosial

(略名：BADAN LITBANG : Agency for Social Reserach and Development)

① 組織図は図4のとおりである。



- * 1 PUSAT PENELITIAN PERMASALAHAN KESEJAHTERAAN SOCIAL :社会福祉問題研究部
社会省が所轄する領域（貧困、障害者問題等）に関する各種状況調査を実施し、問題の所在を明らかにする（問題発見）。
- * 2 PUSAT PENELITIAN DAN PENGEMBANGAN USAHA KESEJAHTERAAN SOCIAL :社会福祉開発研究部
政府が行った社会福祉サービス、活動の結果をPUSAT PENELITIAN PERMASALAHAN KESEJAHTERAAN SOCIAL の実施した調査結果と合わせ分析・評価し、サービスニーズの確認、政府がとるべきモデル（問題解決のためのコンセプト及び計画）を構築する（評価・モデル構築）。
- * 3 B2P3KS :社会福祉開発研究所（詳細は後述）
PUSAT PENELITIAN DAN PENGEMBANGAN USAHA KESEJAHTERAAN SOCIAL が構築したモデルを試行する機関。いわば実験室的機能を持つ。結果については総局長・社会大臣に報告し、政策へ反映させる（実験室）。

図4 LITBANG 組織図

② 調査研究計画の策定方法

1st STEP：社会省の各局及び当研究所におけるニーズの把握を行う。

2nd STEP：提出された研究ニーズについて関係者により討議を行い、優先順位を決定する。

③ NVRCの調査研究

NVRCにおいて行う調査研究について、その計画立案段階でLITBANGと直接研究計画の調整を行う必要はない。NVRCは社会リハビリテーション開発総局下にある施設であるから、研究計画の調整については社会リハビリテーション開発総局と行うことになる。

LITBANGとの調整の必要性の有無については、社会リハビリテーション開発局長が判断することになる。

また、NVRCで行う調査研究の対象は障害者、特に身体障害者に特定され、内容に関しては職業リハビリテーション及びそれに関する周辺分野に限定される。

3) Balai Besar Penelitian dan Pengembangan Pelayanan Kesejahteraan Social (B2P3KS：社会福祉開発研究所)

① 機能

B2P3KSはBADAN LITBANG の下部組織として社会省関連の社会福祉に関する研究開発分野の技術的実施機関であり、特に社会福祉サービスモデルの研究開発及び試行を行う機能を有する。

2) 組織図は図5のとおり。

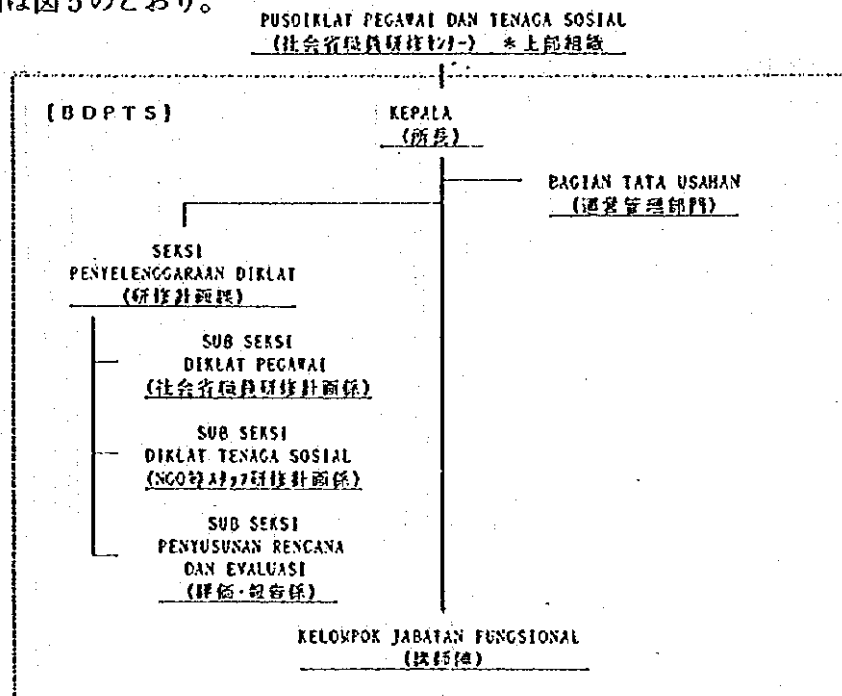


図5 B2P3KS組織図

② 研究活動

研究のタイプには、a) 経常研究、b) 開発研究、c) B2P3KSとして行う3タイプの研究活動がある。

a) 経常研究 (ルーティーン)

1996年度については5本の研究テーマがあり、うち2本が障害者に関する研究である。予算についてはLITBANGから配布される。

b) 開発研究

1996年度の開発研究は5本。2本はLITBANGの開発経費で行われ、3本は共同研究を行っている。共同研究のうち1本は知的障害者の国立リハビリテーションセンターとの共同研究である。

c) B2P3KS自前の研究

1996年度の研究テーマは15本。これは研究者の昇進のための研究であり、ポイント制となっている。障害者関連の研究については社会リハビリに関する研究に現在取り組んでおり、8名のスタッフが担当している。予算についてはB2P3KSの予算の範囲内で行っている。

③ 研究方法

1st STEP: 関係機関、以前同種の研究を実施した機関を訪問し問題の所在を確認する。

2nd STEP: 研究方法を確立したり仮説を構築するための調査を実施する。

3rd STEP: 研究方法・仮説を構築したあとに試行を実施する。

4th STEP: 結果について社会省に報告。内容を検討したうえで調整・是正が必要な場合にはそれを行い実際のサービスに反映させる。

④ 研究期間・研究予算

1本の研究に費やす期間については研究内容に左右される部分が多いが、おおむね3年程度である。

研究予算は以下のとおり。

・経常研究1テーマ: 2,000万から2,500万ルピア程度

・開発研究1テーマ: 1億ルピア程度

⑤ 研究体制

6~7テーマを44名の研究員(研究員には上級研究員等のグレードがある)で分担し、B2P3KS研究員に加え、謝金等で対応する研究経験者、補助職員等おおむね10名が1本の研究に携わっている。

⑥ 研究機材

主な研究用機材はデータ解析等に用いるコンピュータ（パソコン）程度。他には研究発表等で使用するOHPを整備している。実験室もあるが施設・設備は老朽化している。

4) THE CENTER FOR REHABILITATION AND REMEDIATION STUDIES, THE RESEARCH INSTITUTE OF THE UNIVERSITY OF SEBELAS MARET (スプラスマル大学リハビリテーション・治療教育研究センター；別添資料参照)

① 研究活動内容

この大学は7つの研究センターを持ち、その一つがリハビリテーション・治療教育研究センターである。他の研究センターとしては、a) 生活環境研究センター、b) 村落開発研究センター、c) 女性問題研究センター、d) 教育研究センター等がある。

リハビリテーション・治療教育研究センターでは、身体障害者から知的障害者、精神障害者に至るまで障害者全般の問題を扱っている。研究例としては、インドネシア大学との共同研究による小脳症の研究、学習障害に対する研究、栄養面で問題持つ子供に関する研究等がある。全体を見渡して特殊教育に関係する研究が多い印象を受ける。

障害者の職業に関係する研究としては、「村に取り残された障害者の職業訓練・仕事に関する研究」を3年間かけて行った実績がある。この研究では、対象となる障害者の職業興味等について調査を行い、その結果を反映させて縫製、木工、手工芸の訓練を実施した。訓練終了後、マガン（インドネシア国における事業所実習制度）を利用して実習を行い、その結果を分析した。結果としては事業所に就職できた者、自営等で自立した者、その他様々な帰趨状況であった。

② 研究予算

研究予算は船体に不足している。そのため上記にあげたいくつかの研究例にしても、その予算は関係する諸団体から獲得している。研究予算の獲得の問題は大きな問題で、待っていても予算はつかず、積極的に研究計画書を提出する必要がある。一つの方法としては教育文化省における研究コンペがある。これは各大学・関係機関から研究計画書が提出され、内容が認められれば1テーマにつき500万ルピアの研究予算がつくシステムである。研究コンペの総予算は2億ルピア程度である。NVRCも予算獲得のためにこの制度を利用するとよいとの示唆があった。各省庁は各地域の基礎的データを欲しており、研究計画書の内容がそれに合致するものであれば、比較的予算を獲得しやすいようである。

③ 研究成果の普及

研究成果については年4回ジャーナルを発行し普及に努めている。ジャーナルは各500部印刷し、大学・短大・各省の研究開発総局、関係施設等へ配布している。その他希望する者がいれば購入できるシステムになっている。海外への普及は行っていない。

出版以外の普及の場としてはセミナーがある。このセミナーについては地域で行うものと国で行うものがあり、地域でのセミナーは必ず実施しなければならない。国によ

るセミナーは教育文化省の指示により行うこととなる。インドネシア国ではジャーナル等への研究報告については、このセミナーを実施した後に行うシステムとなっている。

④ NVRCとの共同研究について

リハビリテーション・治療教育研究センターはインドネシア国においてリハビリテーション、特殊教育研究の中心的役割を果たしており、NVRCとの共同研究の可能性も当然出てくる。大学の研究予算が少ない現状を考えると、むしろ共同研究は望ましい。ソロRCとはこれまでに共同研究の実績があり、1997年度も共同研究を予定している（予算は社会省）。NVRCの近くにはバンドン工科大学等いくつかの大学があるが、それらの大学が障害者関連の研究へ対応していくことは難しいであろう。

当研究センターでは特殊教育、心理学、医学等、障害者研究に関係するスタッフを11名有しており、大学全体では1,750名の教員が配置されている。研究テーマに応じて柔軟にスタッフを配置することが可能である。

表24 研修受講者リスト

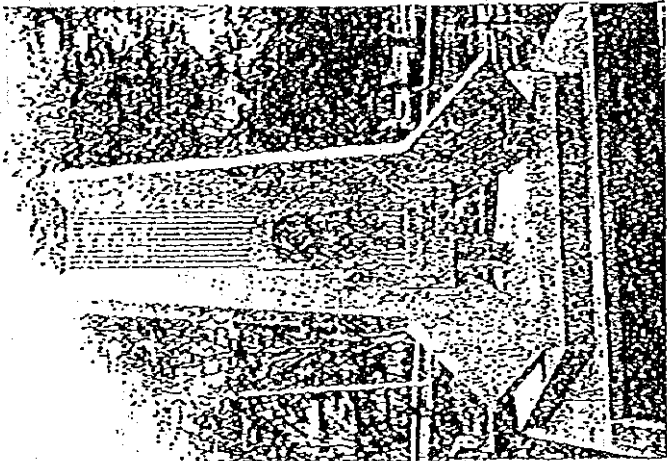
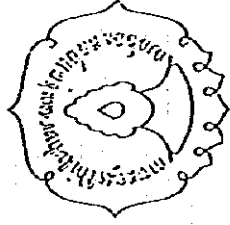
DAFTAR PESERTA PELATIHAN
PERSONIL NVRC CIBINONG
DI PRSBD PROF.DR.SOEHARSO SURAKARTA

NO	NAMA PESERTA	INSTANSI	PELATIHAN YANG DIIKUTI
1.	DRS. SUSANTO ASBUDI NIP. 170021509	KANWIL DEPSOS DKI JAKARTA	PELATIHAN MANAGE- MEN ADMINISTRASI
2.	DRS. PUJI RIYANTO NIP. 170012397	PSBN "BUDI MULYO" MALANG	SDA
3.	DRS. SYAMSURI NIP. 170010283	PSBD "SURYATAMA" PASURUHAN	SDA
4.	RITTA PASARIBU, SH NIP. 1700	PSBN "WIYATAGUNA" BANDUNG	SDA
5.	DRS. DEDY HARTONO NIP. 170011670	KANDEPSOS KABUPATEN KEP. RIAU PROP. RIAU	SDA
6.	DRA. ISWARA HANDAYANI NIP. 170027901	PRSBG "KARTINI" TEMANGGUNG	PELATIHAN PETUGAS VOCATIONAL GUIDAN- CE & ASSESSMENT
7.	DRA. EJA TEJANINGSIH NIP. 170021480	PSBG CIUNGWANARA BOGOR	SDA
8.	DRS. LUHUR YUWONO DWI R NIP. 170016763	KANWIL DEPSOS KALIHANTAN TENGAH	SDA
9.	SUHARYANTO, BSW NIP. 170009532	PRSBD "PROP. DR. SOEHARSO SURAKARTA	SDA
10.	DRA. LESTARI NIP. 170026760	KANWIL DEPSOS KALIHANTAN TENGAH	PELATIHAN PETUGAS RESEARCH & DEVE - LOPMENT
11.	DEWI LESTRIYANI PA, AKS NIP. 170010320	PRSBD "PROP. DR. SOEHARSO SURAKARTA	SDA
12.	DRA. ERNA R. SEPTIANDINI NIP. 170028156	KANWIL DEPSOS LAMPUNG	SDA
13.	UDIN SAPRUDIN NIP. 170017698	PSBG CIUNG WANARA BOGOR	SDA
14.	DRA. DHIAH ROOSHALAWATI NIP. 170025193	PRSBG "KARTINI" TEMANGGUNG	PELATIHAN PETUGAS STAFF TRAINING
15.	HADI PRIYONO, SH NIP. 170026634	KANWIL DEPSOS KALIMANTAN TENGAH	SDA
16.	DRS. IWAN SETIAWAN NIP. 170012582	BPBI BANDUNG	SDA
17.	EDY PRASETIYO NIP. 170024572	PRSBG "KARTINI" TEMANGGUNG	SDA

DAPYAR PESERTA PELATIHAN
PERSONIL NVRC CIBINBONG
DI PRSBD PROP. DR. SOEHARSO SURAKARTA

NO	NAMA PESERTA	INSTANSI	PELATIHAN YANG DIKUTI
18.	K. SUPARTINA NIP. 1700	DITJEN BINREHSOS DEPSOS RI	PELATIHAN INSTRUK- TUR TEXTILE WORK DI BATIK KERIS SURAKARTA
19.	AHMAD KHOTIB NIP. 170010200	BIRO PERENCANAAN DEPSOS RI	SDA
20.	KASPAR SIMARMATA NIP. 170015364	PSBN TAMAN HARAPAN JAKARTA	PELATIHAN INSTRUK- TUR ELEKTRO DI CEVEST BEKASI
21.	MARSUNI NIP. 1700	PPA BAMBU APUS JAKARTA	SDA
22.	PONTIUS SUKARDJO NIP. 170016452	PSK TANGERANG	SDA
23.	WIDODO HARSONO NIP. 1700	PSPP PUTAT NUTUG BOGOR	SDA
24.	ACHMAD HIDAYAT NIP. 1700	PSPP PUTAT NUTUG BOGOR	PELATIHAN INSTRUK- TUR COMPUTER DI CEVEST BEKASI
25.	AGUS KOMENDANGI, BSC NIP. 1700	DIREKTORAT RPC, JAKARTA	SDA
26.	IR. SUKIRNO NIP. 170012911	PRSBD PROF. DR. SOEHARSO SURAKARTA	PELATIHAN INSTRUK- TUR METAL WORK DI CEVEST BEKASI
27.	EDY NURHANDOYO NIP. 1700	PSBRW MELATI BAMBU APUS JAKARTA	SDA
28.	JOKO MINTOAJI NIP. 1700	PSBRW MELATI BAMBU APUS JAKARTA	SDA
29.	RISPANDI NIP. 170010217	PSBD SATRIA UTAMA JAKARTA	SDA
30.	S. SRI WIBOWO, AKS NIP. 170025758	PRSBD PROF. DR. SOEHARSO SURAKARTA	PELATIHAN INSTRUK- TUR PRE-PRINTING DI PUSAT GRAFIKA DAN MEDIA JAKARTA
31.	SUHARTONO NIP. 170019206	PRSBD PROF. DR. SOEHARSO SURAKARTA	SDA
32.	H. BASRI NIP. 170021024	PSBRW MELATI JAKARTA	SDA
33.	MURSAHYOTO NIP. 170015108	PSBD SATRIA UTAMA CENGKARENG	SDA

THE CENTER FOR REHABILITATION
AND
REMIEDIATION STUDIES
THE RESEARCH INSTITUTE
OF
THE UNIVERSITY OF SEBELAS MARET



OF THE UNIVERSITY OF SEBELAS MARET
JL. IR. SUTAMU 36A, SURAKARTA, 57145
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INDONESIA

THE UNIVERSITY OF SEBELAS MARET
SURAKARTA - INDONESIA

INTRODUCTION

To further success in the Indonesian National Development Program which has the goal of obtaining a prosperous and just society for all Indonesians, many social, medical, and educational problems must be faced and solved. Through research, field conditions can be objectively described, and alternatives for appropriate treatment and intervention models can be developed. The University Research Center can develop models for providing social, medical, and educational services for preventative, curative, rehabilitative, and remedial purposes.

THE GOALS OF THE CENTER

The Center for Rehabilitation and Remediation Studies was established with the following objectives:

- 1) to develop concepts for rehabilitation, remediation, and approaches to solve social, medical, and educational problems;
- 2) to develop appropriate intervention models for social, educational, medical, and employment problems;
- 3) to develop approaches for utilizing resources from the community to help improve the social welfare;
- 4) to conduct research, discussions, seminars, and workshops on such problems;
- 5) to develop communication and cooperation with other agencies, private or governmental, domestic or foreign, which are interested in social, medical, or educational problems.

PROGRAMS OF THE CENTER

1. Seminars, discussions, workshops;
2. Research and development;
3. Documentation and information dissemination;
4. Guidance and training for rehabilitation and remediation;
5. Publications and library development;
6. Laboratory procedures in rehabilitation and remediation;
7. Cooperative efforts with other agencies.

For the 1991-1994 period, these programs place an emphasis on problems related to social, medical, educational, and employment aspects, directly or indirectly related to social welfare.



COMPLETED AND ONGOING ACTIVITIES

1. Surveys and research in the Surabaya area on the attitudes of people in rural society toward handicapped people, participation of members of society in efforts to rehabilitate the handicapped, assessment of needs and opportunities for the handicapped, potential employment for the mentally retarded, and advantages of the re-socialization of former prostitutes.
2. Research on remedial teaching for learning disabled elementary school students.
3. Seminars and discussions on efforts to provide for educational and rehabilitation services for learning disabled students.
4. Detection of handicapping conditions among elementary school students.
5. The pioneering and development of Community Based Rehabilitation (CBR) Models in rural areas.
6. Training and guidance of CDR cadres in several districts.
7. Cooperation with the Ministry of Social Affairs, the Ministry of Health, the Ministry of Education and Culture, the Ministry of Labour, the Indonesian National Board for Social Welfare, and other agencies.
8. Regional and national seminars on minimal brain dysfunction.
9. Publication of research results, seminar papers, and journals.

The center invites individuals and institutions for collaborative research in rehabilitation and remediation programs and to participate in other related activities.

3-4 職員研修

(1) 職員研修実施状況

NVRCのソフトオープニングへ向けて、現在33名のNVRCスタッフ候補が研修を受講している。研修受講者については、7月のソロ・プロジェクト終了時評価調査団が持ち帰った研修受講者リストから大きく変更が生じており、今回入手した研修受講者リストは表-24である。研修期間は7月14日から約2か月間の予定で実施されている。ただし、指導員についてはその限りでない。

職種ごとの研修先は表25のとおり。

表25 職種別研修先

職 種	人数	研 修 先
管理部門 (管理職)	5名	ソロRC
職業指導・評価	4名	〃
調査研究	4名	ソロRC、スプラスマル大学
職員研修	4名	社会省職員研修センター (ジョグジャカルタ)
指導員 (縫製)	2名	ソロ市内縫製工場
〃 (電子)	4名	CBVEST
〃 (コンピュータ)	2名	〃
〃 (金属加工)	4名	〃
〃 (印刷)	4名	ジャカルタ市内企業、専門学校

(2) 今後の研修実施計画

1) NVRCオープンへ向けた今後の職員研修計画について

インドネシア側の説明によると、NVRCの職員に対しては基本的に全員研修を受講させる計画があり、現在研修を受講している33名以外の職員に対しては、11月以降特別予算を組んで研修を実施する意向である。しかし、この話は今回の協議の席で初めてでてきた内容であり、現時点で11月以降の具体的な研修計画はない。このような経緯から、11月以降の職員研修についてどこまで実行されうるのかが疑問が残る状況である。

2) Local Officerの研修について

1997年度にインドネシア側が実施する職員研修の対象者としてLocal Officerがあげられている (1997年度2月、安井・森崎報告)。ここでいう“Local Officer”は、各地方の社会事務所あるいはインドネシア国に5か所ある身体障害者リハビリテーション施設 (PANTI) の職員等であり、これらの機関はNVRCがインドネシア全土にその対象者を求める際に、各地域において募集活動あるいは入所のための評価機関として中心的な役割を果たす機関となる。したがって、NVRCが円滑に募集・評価活動を進めるためには、これらの機関の職員に対する

事前研修が不可決であるが、残念ながら1997年度の研修計画には含まれていない。

社会省のスタッフは、これら地方機関の職員に対する研修の必要性についてすら認識しておらず、その意義について再度日本側からの説明を要した。最終的に研修の必要性については理解を得たが、Local Officer に対する研修を1997年度に実施することは困難であり、1998年度に必要な予算を確保し実行することとなった（これにかかる予算については既にソロRCが申請を行っているが、社会省はこれを把握していないようである。予算が認可されれば1998年6月以降に実施される予定である）。

3) NVRCフルオープニング以降の研修計画について

1997年4月のNVRC事前調査において、NVRCフルオープニング以降の職員研修については、訓練コースの開始から6か月以降に実施することが確認されている。しかし、今回の協議により訓練コースの開始が1998年度に2コース（コンピュータ、縫製）、1999年度に3コース開講というように段階的な実施となったことに伴い、いつの時点から職員研修を実施するのか見直しが必要となった。

具体的な職員研修計画について現在は白紙の状態であり、ソフトオープニング以降に関係する職員でその計画を作成していくことになる。

(3) 供与機材

職員研修に関する無償機材供与は一切行われていない。しかし、現実に関係研修を進めていくためには、最低限のAV機器等の機材の整備は必要であり、それをインドネシア側に求めることは難しい。職員研修業務をサポートするためには、日本側による機材供与が不可欠である。

インドネシア側からの要望は下記のとおりである。

- ① コンピュータ及び関連機器
- ② アプリケーションソフト（ワープロ、プレゼンテーションソフト等）
- ③ OHP
- ④ スライドプロジェクター
- ⑤ ビデオプロジェクター
- ⑥ 大型モニター
- ⑦ ビデオテープレコーダー
- ⑧ テープレコーダー
- ⑨ 拡大実物投影機
- ⑩ コピー機等

(4) 日本側の協力について

1) 研修対象者及び技術移転項目

4月のNVRC事前調査において確認されている研修対象者及びACTIVITYは以下のとおりである。

{研修対象者}

- a) NVRC staff
- b) Other RCs staff
- c) Social worker
- d) Management officer

{ACTIVITY}

- a) To make staff training plans
- b) To develop curriculum and improve them
- c) To make teaching materials
- d) To develop the training method and the management method
- e) To implement training courses
- f) To evaluate the contents of courses

これらの内容に関して大きな変更はない。ただし、職員研修部門のC/Pが行う業務は、研修コースの設定、カリキュラムの作成、テキストの企画・編集・研修の評価等の企画・立案等にかかる a) ~ d) 及び f) の業務であり、テキストの執筆や技術指導・講義そのものではない。

したがって、ACTIVITYの e) に関しては削除することが適当である。

2) 協力期間

職員研修にかかるACTIVITYは上に記すとおりであり、これらについても5年間のプロジェクト期間内に長期専門家派遣し技術移転を行うことが求められている。

ここで、職員研修にかかる長期専門家の行う技術移転の中身についてみていくと、その内容は研修の企画あるいは研修カリキュラム、研修教材等の作成に関する企画・立案技術の移転が中心であり、例えば研修教材に記述された内容にまで踏み込んで助言・指導を行うことではない。このように考えると、職員研修にかかる技術協力については、他の分野の技術協力と比較し多少趣を異にすることがあり、必ずしもプロジェクトの終了時期まで長期専門家を派遣する必要性は少ないと考えられる。

3) 暫定実施計画（5年間）

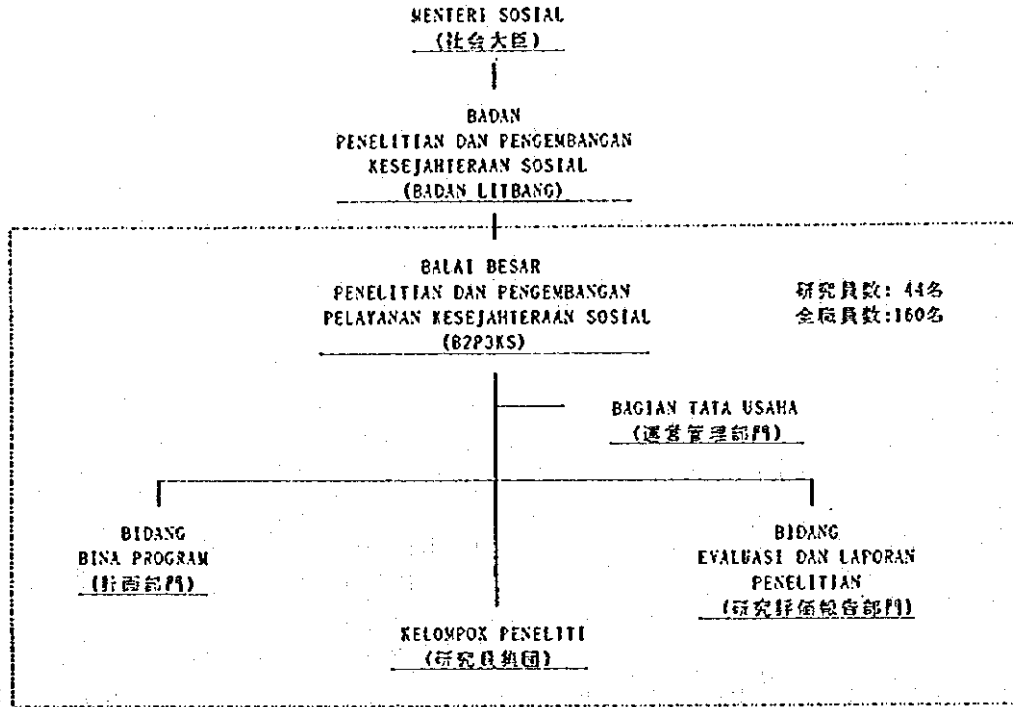
2) で述べたとおり、職員研修にかかる技術協力のあり方については、長期専門家の派遣期間について再度検討する必要がある、それが定まるまでの間は暫定実施計画を作成すること

はできない。

(5) 職員研修関連施設

・ Balai Diklat Pegawai dan Tenaga Sosial Yogyakarta (BDPTS : 社会省職員研修所)

1) BDPTS組織図は図6のとおりである。



インドネシア全土に10か所の研修施設 (BDPTS) を設置しているのが、このうちバンドンにあるBDPTSのみ性格が異なり、ここではソーシャルワーカーに対し社会福祉技術に関する研修を中心に実施している (詳細は1995.12池田短期専門家調査報告を参照)。

各BDPTSで実施する研修の企画調整は、社会省職員研修センター (PUSDIKLAT PEGAWAI DAN TENAGA SOSIAL) が行い、各BDPTSが研修を実施する。

なお、研修の企画調整の際は各BDPTSから情報を収集したり、またBDPTSからの申請に基づき企画を立案している。

ジョグジャカルタにあるBDPTSでは10名の内部講師を配置しているが、内部講師で対応できない研修内容については外部講師を招き対応している。

図6 BDPTS組織図

2) 職員研修の対象及び内容

職員研修の対象は、①社会省の職員を対象とするものと、②NGOの職員を対象とするものがあり、内容としては大きく分けて次のa)～c) 3つのタイプがある。

① 管理部門の職員を対象

a) 技術研修 (DIKLAT TEKNIK)

b) 管理職研修 (DIKLAT STRUKTURAL) →昇進に必要

② 各業務担当職員を対象

c) 職務に関する専門研修 (DIKLAT FUNGSIONAL)

a) と c) の“技術”と“専門”が指し示す意味の違いについて再三質問したが要領を得なかった。説明している職員がよく分かっていない様子である。

研修期間については、長いもので1年間、短いもので1週間程度。その他にも2週間、1か月、2か月、3か月とさまざまである。

3) 研修経費

研修にかかる各種経費は講師の謝金から受講生の旅費、滞在費に至るまでBDPTSが負担する。経費の具体的な内容としては、①講師謝金・旅費、②受講生の旅費（往復）、③日当、④宿泊費、⑤筆記用具経費、⑥薬品代、⑦研修実施担当者への謝金（受講者送り出し機関の研修担当者への謝金）、⑧交通費補助、⑨研修受講中の出張費等。

これらについてBDPTSが支給することとなっているが、実際には社会省の予算が不足しているために、支給されないままに自己負担で受講せざるを得ない状況も発生している。

4) NVRCで実施する職員研修との関係

各BDPTSで実施する研修内容とNVRCで実施する研修内容が多かれ少なかれ重複することが考えられる。したがって、NVRCで実施する研修についてはその内容、計画について事前に社会省で調整を行う必要がある。NVRCとしては研修計画をリハビリテーション開発総局に提出し、社会リハビリテーション開発総局が必要に応じて社会省職員研修センターと調整を行うことになる。

資 料

資料1. メモランダム

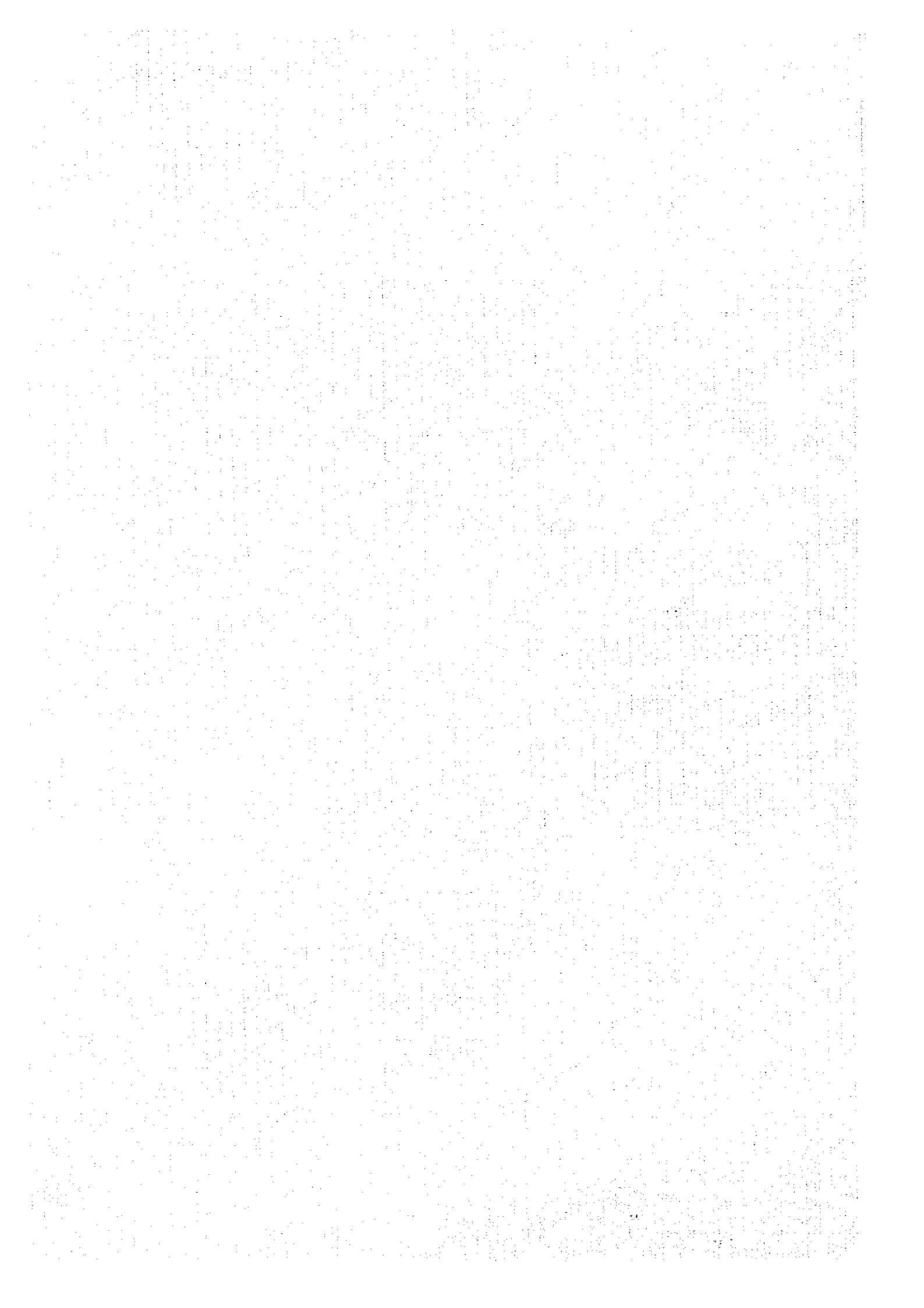
資料2. 企業調査結果

資料3. 職業訓練(金属加工・電子・印刷)のカリキュラム・シラバス

1) 金属加工分野

2) 電子分野

3) 印刷分野



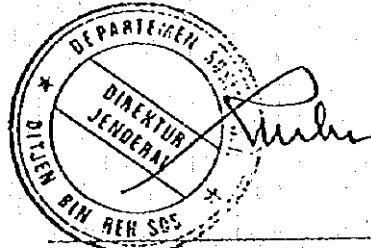
MEMORANDUM OF THE MEETINGS
BETWEEN
THE JAPANESE LONG TERM SURVEY TEAM
AND
THE AUTHORITIES CONCERNED ON
THE PROJECT FOR THE NATIONAL VOCATIONAL REHABILITATION
CENTRE FOR THE DISABLED PEOPLE, PROF. DR. SOEHARSO, CIBINONG

The Japanese Long Term Survey Team (hereinafter referred to as "the Team) and the Indonesian authorities concerned on the Project for the National Vocational Rehabilitation Centre for the Disabled People, Prof. Dr. Soeharso, Cibinong (hereinafter referred to as "the Project") had a series of discussions and came to common understanding on the matters referred to in the attached document.

Jakarta, September 12, 1997

杉野 浩元

Mr. Hiroyuki Kinomoto
Leader,
Japanese Long Term Survey Team,
Japan International Cooperation
Agency,
Japan



Drs. H. Ruchadi
Director General for the
Development of Social
Rehabilitation,
Ministry of Social Affairs,
The Republic of Indonesia

ATTACHED DOCUMENT

1. Schedule of the training courses

1) Metal Working, Printing and Electronics

The Team has suggested Indonesian side to start three training courses namely, Metal Working, Printing, and Electronics, from September, 1999, as it will take considerable time to raise technical level of counterparts as instructor. Indonesian side has explained that from reason of budgetary system, they have to make trainees graduate within one fiscal year(from April to March), therefore these courses have to be started from June, 1999.

The Team and the Indonesian side have reached common understanding that these three courses will be started from June, 1999, on condition that the Indonesian side will secure enough budget for placement which is required after graduation of trainees even at the beginning of the next fiscal year as well as enough budget required for recruitment and assessment at the beginning of fiscal year.

Also, the Indonesian side has agreed upon suggestion by the Team to implement full time instructor's training upto commencement of the courses.

2) Computer and Textile

The Indonesian side has requested to start two courses namely, Computer and Textile, from June, 1998, insisting on the budgetary reason mentioned in 1.1) above. The Team expressed it's concern that this schedule doesn't seem to be feasible considering of necessary term for recruitment and assessment. However, the Indonesian side explained that the first batch of the two courses will be recruited among disabled people who is under training or who has completed training at the other institutions like LBK, PANTI and so on, and therefore the term of recruitment and assessment can be reduced.

The Team and the Indonesian side have reached common understanding that these two courses will be started from June, 1998, on condition that the Indonesian side shall take necessary measure to constitute collaboration between NVRC and other organizations concerned for smooth recruitment and assessment, and shall submit the schedule of recruitment and assessment to the Japanese side after consideration in detail.

2. Curriculum of each course

The Indonesian side has accepted curriculum for three courses namely, Metal Working, Printing and Electronics, drafted by the Team.

3. Schedule of recruitment and assessment of trainees

The Indonesian side has agreed upon necessary procedure and duration thereof, for recruitment and assessment as explained by the Team. However, the Indonesian side has explained that recruitment and assessment for the first batch of the two courses(Computer and

Textile) will be done in the way mentioned in 1.2) above as an exception, and recruitment and assessment for the other batches and the other courses will be done according to the procedure explained by the Team.

4. Research & development

The Team informed that contents of the Japanese cooperation for the research and development can not be decided unless the Indonesian side makes plan and identifies the themes of the research and development, however, they have not been proposed by the Indonesian side yet. Also, the Team informed that there are no counterparts who has an experience of research and development and it is desirable to assign experienced counterpart who can play a leading role in deciding details of the research and development.

The Indonesian side explained that experienced counterparts are going to be recruited from BADAN LITBANG DEPSOS and BAPPAKS of the Ministry of Social Affairs in October and will make plan and identify the themes of the research and development.

5. Staff Training

1) Preparation stage

The Indonesian side has explained that they intend to train all the staff except for manager level and besides the training programmes of 33 candidates of staff which are underway, another training programme is scheduled to start from November, 1997.

The Indonesian side has agreed to submit plan of the training to the Japanese side.

2) Full operation stage

The Indonesian side has explained that it takes some more time to consider a concrete plan, and agreed to submit it to the Japanese side.

6. Administrative affairs

1) Organization chart

The Japanese side suggested that function of each division should be carefully considered to avoid duplication and lacking of function. The Indonesian side has explained that function of division and subdivision is in the process of reconsideration.

2) Allocation of staff

The Team has requested to submit information on the allocation of 121 staff and the Indonesian side agreed to submit this information after finalizing allocation of staff.

3) Budget

The Team has requested to submit breakdown of the budget of FY 1997/1998 and 1998/1999 and the Indonesian side has agreed to submit them to the JICA office in Jakarta.

4) Structure of Joint Coordinating Committee

The Team and the Indonesian side have confirmed tentatively structure of Joint Coordinating Committee as shown in Annex I.

5) Structure of Steering Committee

The Team and the Indonesian side have confirmed tentatively structure of Joint Coordinating Committee as shown in Annex II.

7. Project Design Matrix

The Team and the Indonesian side have confirmed contents of the Project Design Matrix as shown in Annex III. The Team has explained that Overall Goal, Project Purpose, Outputs and Activities will consist the Master Plan of the Project which will be written in the Record of Discussions.

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Annex I

JOINT COORDINATING COMMITTEE

1. Function

The Joint Coordinating Committee will meet at least once a year and whenever the need arises;

- (1) To formulate the Annual Work Plan of the Project
- (2) To review the overall progress of the technical cooperation program as well as achievement
- (3) To exchange views on major issues arising from or in connection with the Project.

2. Members of the Committee

(1) Chairperson

Director General for the Development of Social Rehabilitation,
Ministry of Social Affairs

(2) Members

a. Indonesian side

1. Director, Directorate for the Rehabilitation for the Disabled, Ministry of Social Affairs
2. Minister's Expert of the Development of Social Rehabilitation
3. Director, NVRC
4. Head of Planning Bureau, Ministry of Social Affairs
5. Head of Bureau for Health and Nutrition, National Development Planning Agency (BAPPENAS)
6. Directors of the Ministries concerned.
7. Director, RC Solo
8. Head of national social organization for and of disabled persons
9. Head of APINDO
10. Other persons concerned

b. Japanese side

1. Chief Advisor
2. Coordinator
3. Other Experts
4. Members of JICA study teams
5. Representatives of JICA Indonesia Office
6. JICA expert in DEPSOS
7. Other persons concerned

Note: Official(s) of the Embassy of Japan may attend the Joint Coordinating Committee meetings as observer(s).

Annex II

STEERING COMMITTEE

1. Function

The Steering Committee will be organized and meet at least once in every two month;

- (1) To review the detailed progress of the technical cooperation program as well as achievement
- (2) To formulate the draft of the Annual Work Plan of the Project

2. Members of the Committee

(1) Chairperson

Director, NVRC

a. Indonesian side

1. Head, Administration Division
2. Head, Preparation Vocational Division
3. Head, Process of Vocational Training Division
4. Head, Resocialization Division
5. Head, Staff Training Division
6. Head, Research and Development Division
7. Counterpart personnel of the Project
8. Head of the Planning Unit, RC Solo
9. Head of subdirectorate of the Ministries concerned
10. Other persons concerned

b. Japanese side

1. Chief Advisor
2. Coordinator
3. Other Experts
4. Members of JICA study teams
5. Representatives of JICA Indonesia Office
6. Other persons concerned

Note: Official(s) of the Embassy of Japan may attend the Joint Coordinating Committee meetings as observer(s).

<p>OBJECTIVES</p>	<p>INDICATORS</p>	<p>MEANS OF VERIFICATION</p>	<p>IMPORTANT ASSUMPTIONS</p>
<p>Employment for the disabled people is promoted by the establishment of vocational rehabilitation system in the Republic of Indonesia.</p>	<p>The employment rate for the graduate trainees and the disabled people increases.</p>	<p>Data of Ministry of Social Affairs Data of Ministry of Manpower Employment survey on the disabled people in enterprises Follow up survey on trainees</p>	<p>The policy for the disabled people is unchanged in the Republic of Indonesia.</p>
<p>Vocational rehabilitation system is established in the National Vocational Rehabilitation Centre for the Disabled People, Prof. Dr Soeharno, Gunung (NVRC).</p>	<p>Manuals of Vocational Guidance / Assessment are fully provided. Training materials of Vocational Training is fully provided. In each field, Vocational Training is executed. Teaching materials and manuals of Staff Training are fully provided. Staff Training for other KCS staff is executed. Staff Training for social workers is executed. Staff Training for management officer is executed. Achievements of IADP in the selected theme are reflected in the activities of NVRC</p>	<p>The status table on the manual and teaching materials development The status table on the vocational training performance The status table on the staff training performance The report of R&D activities</p>	<p>Cooperation by Ministry of Manpower and related organizations concerning placement The establishment of law and institution for employment promotion of the disabled people The understanding of entrepreneur for employment and special participation of the disabled people The social understanding for employment and social participation of the disabled people</p>
<p>1. The organization and functions of NVRC are established. 2. The staff of Vocational Guidance/Assessment are trained. 3. The staff of Vocational Training courses are trained in each field. 4. The staff of Staff Training are trained. 5. The staff of Research and Development (R&D) are trained.</p>	<p>Necessary staff and budget is secured. The knowledge and techniques of Vocational Guidance / Assessment staff reaches the sufficient level. The knowledge and techniques of Vocational Training staff reaches the sufficient level. The knowledge and techniques of Staff Training staff reaches the sufficient level. The knowledge and techniques of R&D staff reaches the sufficient level.</p>	<p>The records of NVRC and UGM tablin The evaluation list for staff of NVRC</p>	<p>The staff in the NVRC remain in the centre. The financial support to NVRC is sufficient. The financial support to R&D is sufficient.</p>
<p>ACHIEVEMENTS</p> <p>Appendix 1</p>	<p>INDONESIAN SIDE</p> <ul style="list-style-type: none"> Equipment & facilities CP assignment Budget allocation <p>JAPANESE SIDE</p> <ul style="list-style-type: none"> Dispatch of experts : Long term expert / year (including of chief adviser and coordinator) Short-term expert / year Training in Japan Machineryes Local cost 	<p>PRE-CONDITIONS</p> <p>NVRC staff is established The staff of NVRC are secured and trained The staff of UGM are secured and trained The staff of UGM are secured and trained The staff of UGM are secured and trained The staff of UGM are secured and trained</p>	<p>The staff in the NVRC are secured. Counterpart personnel remain in the NVRC. The trainees for vocational training are secured. The necessary finances for Staff Training are secured. The import of machineryes are amply provided.</p>

COMPARATIVE SUMMARY	INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Employment for the disabled people is promoted by the establishment of vocational rehabilitation system in the Republic of Indonesia.</p> <p>Vocational rehabilitation system is established in the National Vocational Rehabilitation Centre for the Disabled People, Prof. Dr. Soetomo, Chitung (NVRC).</p>	<p>The employment rate for the graduate trainees and the disabled people increases.</p> <p>Methods of Vocational Guidance / Assessment are fully provided.</p> <p>Training materials of Vocational Training are fully provided.</p> <p>In each field, Vocational Training is executed.</p> <p>Teaching materials and manuals of Staff Training are fully provided.</p> <p>Staff Training for other KCS staff is executed.</p> <p>Staff Training for social workers is executed.</p> <p>Staff Training for management officer is executed.</p> <p>Achievements of R&D in the selected items are reflected in the activities of NVRC.</p>	<p>Data of Ministry of Social Affairs</p> <p>Data of Ministry of Manpower</p> <p>Employment survey on the disabled people in enterprises</p> <p>Follow up survey on trainees</p> <p>The status table on the manual and teaching materials development</p> <p>The status table on the vocational training performance</p> <p>The status table on the staff training performance</p> <p>The report of R&D activities</p>	<p>The policy for the disabled people is strengthened in the Republic of Indonesia.</p> <p>Cooperation by Ministry of Manpower and related organizations concerning placement</p> <p>The establishment of law and regulation for employment promotion of the disabled people</p> <p>The understanding of entrepreneur for employment and social participation of the disabled people</p> <p>The social understanding for employment and social participation of the disabled people</p>
<p>The organization and functions of NVRC are established.</p> <p>The staff of Vocational Guidance/Assessment are trained.</p> <p>The staff of Vocational Training courses are trained in each field.</p> <p>The staff of Staff Training are trained.</p> <p>The staff of Research and Development (R&D) are trained.</p>	<p>Necessary staff and budget is secured.</p> <p>The knowledge and techniques of Vocational Guidance / Assessment staff reaches the sufficient level.</p> <p>The knowledge and techniques of Vocational Training staff reaches the sufficient level.</p> <p>The knowledge and techniques of Staff Training staff reaches the sufficient level.</p> <p>The knowledge and techniques of R&D staff reaches the sufficient level.</p>	<p>The records of NVRC and CASM table</p> <p>The evaluation list for VAF of NVRC</p>	<p>The staff in the NVRC remain in the centre.</p> <p>The financial support to NVRC is sufficient.</p> <p>The financial support to R&D is sufficient.</p>
<p>Appendix 1</p>	<p>INPUTS</p> <p>INDONESIAN SIDE</p> <ul style="list-style-type: none"> Equipment & facilities GR assignment Budget allocation <p>JAPANESE SIDE</p> <ul style="list-style-type: none"> Dispatch of experts : Long term expert / year (including of chief adviser and coordinator) Short-term expert / year Training in Japan Machineries Local cost 	<p>The staff in the NVRC are secured.</p> <p>Counterpart personnel remain in the NVRC.</p> <p>The necessary transfers for Staff Training are secured.</p> <p>The input of machineries are suitably provided.</p>	<p>PRE-CONDITIONS</p> <p>NVRC staff is recruited and settled</p> <p>The staff of NVRC are trained and their capability is improved</p> <p>The staff of NVRC are trained and their capability is improved</p> <p>The staff of NVRC are trained and their capability is improved</p> <p>The staff of NVRC are trained and their capability is improved</p>

ACTIVITIES

1. Establishment of operation and management system in NVRC.
 - 1-1 To establish the organization and structure
 - 1-2 To assign appropriate personnel
 - 1-3 To establish a maintenance system for facilities and equipment.
2. Technical transfer in Vocational Guidance/Assessment
 - 2-1 To try out the Vocational Guidance/Assessment system developed at the National Rehabilitation Centre, for the Physically Disabled People, Prof. Dr. Soeharso, Surakarta (RC Solo).
 - a) To try out the recruitment system for wide area
 - b) To try out the selection system for wide area
 - c) To try out the placement system for wide area
 - 2-2 To improve the Vocational Guidance/Assessment system developed at RC Solo.
 - a) To improve the recruitment system for wide area
 - b) To improve the selection system for wide area
 - c) To revise the selection method and make the selection standard
 - d) To improve the placement system for wide area
 - 2-3 To try out, assess and revise the system mentioned above
3. Technical transfer in Vocational Training

Following activities in the fields of (a), (c).

 - 3-1 To make vocational training plans (a) Metal Work
 - 3-2 To develop curricula and improve them (b) Electronics
 - 3-3 To make teaching materials (c) Computer
 - 3-4 To develop training method and technical specialties (d) Machine Sawing (e) Painting
 - 3-5 To implement training courses
 - 3-6 To improve operation and maintenance methods of training machines
 - 3-7 To develop the skill evaluation method
 - 3-8 To evaluate the contents of courses
4. Technical transfer in Staff Training

Following activities for (a)-(d).

 - 4-1 To make staff training plans (a) NVRC staff
 - 4-2 To develop curricula and improve them (b) Other RC's staff
 - 4-3 To make teaching materials (c) Social worker
 - 4-4 To develop training method and the management method (d) Management officer
 - 4-5 To develop evaluation method
5. Technical transfer in R&D

Following activities in the themes of (a)-(c).

 - 5-1 To make R&D plans (a) The physically disabled issues
 - 5-2 To develop R&D method (b) Labor market issues
 - 5-3 To develop the analysis techniques (c) Job opportunities issues
 - 5-4 To implement R&D (d) Appropriate vocational training course for the disabled
 - 5-5 To evaluate the results of R&D and to reflect them of the activities (c) Evaluation and analysis of vocational training results of NVRC.

*Activity in (5-4) is implemented by the Indonesian side.

資料2. 企業調査結果

施設工場見学等（概要メモ）

（社会省関係）

社会省表敬訪問：総局長は（DR. H. SUSILO SUPENO から H. RUCHADI）、交代しており、新局長は英語ができない。若く積極的であるが本協力への方針は不明。
チビノンプロジェクトの進捗状況の説明があり目新しいことはない。

チビノン建設現場：建設工事の進捗状況は順調で予定通り

チウンワナラ知的障害者福祉施設：ソロセンターに隣接し、協力隊が入っていた

ソロセンター：指導員には面接できず、調査研究部門の職員及び所長と懇談

PANTI（チンカレン）：実習場を見学したが、訓練の内容は貧しい。カリキュラムを入手、参考とした

（労働省関係）

労働省：訓練局長と面談、労働省は過去において身障者職業訓練を実施したが失敗したとのこと、職業訓練概要の説明を受ける。

CEVEST：研修中の11名のチビノンプロジェクト要員と面談する
大多数の指導員予定者は、熟練者が少ない（別添 c/p
面接所見参照）

(機械加工系関連)

訪問日時： H9. 8. 21 (木) 15:30~17:00

企業名： YAMAHA INDONESIA (合併企業 7:3)

所在地： JALAN RAYA BEKASI Km.23 Pulo Gadung TEL (021) 4612222

対応者： Director HIROYUKI SUZUKI, YOSHIO WAKUTA

主要製品： バイク、浄水器

設立： 1974年

工場： 1997 150万台/年
2000年には1,000万台の生産予定で工場増設中

資本金： US\$ 61,800,000

従業員数： 約4,000名

- 備考：
1. 従業員の募集は公募により各部門別に行われる(事務、現場、研究開発、管理等)
入社試験は、面接、学科テスト、健康診断で判断される。
 2. 各地にあるサービスセンターの従業員は、ヤマハトレーニングセンターでエンジニアを養成している。
 3. 生産ラインの従業員は高卒、中卒、事務職は短大卒
研究開発、管理等は大卒

(機械加工関連)

訪問日時： H9. 8. 21 (木) 13:00~14:30

企業名： TORSIMA GUNA INDONESIA (合併企業西島製作所)

所在地： JAKARTA CITY TEL 8841147~8852415

対応者： 工場長 井上 富志男

主要製品： 各種プラント用ポンプ、自動車部品

設立： 1984年

工場： 第一工場(機械加工・組立)プラントポンプ4,000台/年

第二工場(鋳物) 1,000ton/年

資本金： US\$ 1,000,000 (約1億円)

従業員数： 約60名

- 備考：
1. 従業員の定着率が良い。
 2. QCは積極的である。
 3. 今回の長期派遣の対象であるチビノン(NVTRC)で計画されている機械加工科の修了生には最適の職場のように思われた。

(以上)

(機械加工関連)

訪問日時: H9. 8. 26 (火) 16:50~18:00

企業名: DICKYMETALS (合弁企業 三和シャッター)

所在地: JAXARUTA CITY TEL (6221) 4600822

対応者: PLANT MANAGER SIE SWAN HIAN

主要製品: ドア金具のプレス製品、シャッター

設立: 1987年

工場: 第一工場 (プレス機械加工・組立)
第二工場 (シャッター制作)

資本金: US\$ 5,000,000

従業員数: 約40名

備考: 1. 従業員の定着率が悪い。

2. 安全作業に苦勞している。

3. 従業員の職種は危険なプレスの単純作業が大部分である。

今立ち上げにかかっている付加価値の高いシャッター部門は日本からのセット技術でチビノン (NVTRC) で計画されている機械加工科の修了生には不向きな職場のように思われる。

(以上)

(製版印刷科関連)

- * 訪問日時：1000. 21. AUG
企業名：PT. DAINIPPON PRINTING
INDONESIA (DNP)
所在地：Kawasan Industri Pulogadung
Jakarta
対応者：社長 佐藤秀志
主要製品：パッケージ印刷
設立：Feb. 1972
工場：不明
資本金：US 20,000,000
従業員：2000名(日本人 18名)
備考：1、設備内容は日本と同様で、空調・材料の品質管理は徹底している。
2、採用条件は、大学卒以上としているが健康診断で40%程度が否となるとのこと。健康状態が良好で、真面目で意欲的であれば、3桁の乗算が理解できる程度であれば、採用の可能性が見込められると思われる。
3、版下製作部門はDTPシステムを導入していた。グラフィックデザイン、コンピュータグラフィックス技能を付与することで職場開拓が可能であると思われる。

- * 訪問日時：1200. 26. AUG
企業名：PT. GRAMEDIA PTINTING
所在地：
対応者：Marketing Manager BEN RAHYO
主要製品：新聞・雑誌・書籍等
設立：1963
工場：不明
資本金：不明
従業員：
備考：1、DNPと同様の印象であるが、DNPよりも紙への印刷が主力であることから、より就職職種の範囲が拡大できると思われる。
その他：YAMAHA INDONESIAを訪問をした際の話の中で、製品のマニュアル等は自社内の印刷部門で印刷しているとのこと。このことから、大規模製造メーカーでは企業内印刷を実施しているところが多いと思われるので、就職活動においてはそのような企業へのアプローチも効果が期待できると思われる。

(電子機器科関連)

* 訪問日時：1500, 20, AUG

企業名：LMM COMPANY:

所在地：JI. Rawa Gatell s-34 Kawasan, J
akarta

対応者：社長 星野義明

事務部長 Anthny Manurung, SH

主要製品：冷蔵庫、エアコン、ポンプ

設立：11, Nov, 1981

工場：24、320㎡および14、210㎡

資本金：不明

従業員：400名(臨時工を含めず)

備考：1、市場占有率は毎年15%伸びている

2、高校卒業者を試験(中学2年程度)で採用する。

3、労働省資格(技能さえあれば、溶接等)があれば、採用は考
える。

* 訪問日時：1500, 21, AUG

企業名：INDONESIA EPSON INDUSTRY

所在地：JL. Raya, Bekasi KM23 Pulogadun
g, Jakarta

対応者：課長 阿部静幸

主要製品：プリンター

設立：1987

工場：不明(大規模)

資本金：不明

従業員：約4000人

備考：1、日本における関連中小企業(3社)を誘致した。

2、管理職の採用は、現地人材派遣会社を利用する。

3、入社試験は学歴は高校卒業以上とし、面接、健康診断、学科
(中学卒業程度)を実施している。

資料3. 職業訓練(金属加工・電子・印刷)のカリキュラム・シラバス

TRAINING STANDARD

J I C A

CIBINONG NVRC LONG TERM STUDY TEAM

1997. 9. 10

1) 金属加工分野

TRAINING COURSE : METAL WORK

TRAINING PERIOD : 10 month (1000 h)

TRAINING OBJECTION : The course intended to provide the trainee with training of such a level that would enable him to masterskills and knowledge for Metal Work

TRAINEE'S READINESS :

Course	training hours	Detail of Course
	1000	
1 General subjects	105	
2 Assistant subjects	45	
3 Specialized subjects	850	
I Theoretical training	250	
1 Mechanical engineering foudation	(70)	Mesurement, Finishing, Plate worke, Welding, Machining Internal combustion engine, Electricity
2 Machine element	(30)	Screw, Shaft, Bearing, Power plant
3 Machinery Mathematics	(40)	Simple mathematics (+ - × ÷), Trigonometrical function Calculation of the stress
4 Mechanical material	(40)	Kind, characteristic and using of Mechanical material,
5 Mechanical drawing	(30)	Drawing Industry Standard, Method of Mechanical Drawing, Technical Illustration
6 Workshop practices	(40)	Mechanical overhaul and assembly, Machining, Welding, Heat treatment, Casting, Forging, NC, CAD
II Practical training	600	
1 Mechanical drawing	(60)	Using of Drawing Industry Standard Method of Mechanical Drawing, Technical Illustration
2 Finishing	(60)	Mesurement, Marking-off, Finishing, Bench drill
3 Machining of Metals (Cutting work)	(300)	Lather, Milling, Shaper, Grinding machine, Tool grindig machine
4 Welding	(120)	Gass cutting, Gass welding, Arc welding, Bending machine
5 Mechanical overhaul and assenbly	(60)	Small Diesel-engine and Small Gasoline-engine

(Remarks for instruction)

(1) To device the practical training hour which trainee will be needed for his jobs.

(2) To train the trainee with close relation practical subjects and theory one.

(3) To odop: the result of latest machine field.

TRAINING STANDARD

1 Theoretical training 104

2 Specialized subjects 250

1 Mechanical engineering foundation (70)

1-1/2

The subjects are intended to provide the trainee with:

- (1) general knowledge of measuring
- (2) general knowledge of finishing
- (3) general knowledge of metal plate work
- (4) general knowledge of the welding
- (5) general knowledge of machine tool
- (6) general knowledge of internal combustion engine
- (7) general knowledge of electricity

Subject	Detail of Course	Hours
1 Measurement		4
(1) Unit of length	Metric system, Inch system, The conversion	(1)
(2) Unit of area	mm ² cm ²	(1)
(3) Unit of weight	ton kg g	(1)
(4) Measuring instrument	Scale, Nonius, Caliper, Micrometer, Dialgauge and Brock gauze	(1)
2 Finishing		3
(1) Finishing instrument	Hammer, Chisel, File, Tosecan, Tap, Dice, Bench-drill	(3)
3 Plate work		3
(1) Blank layout	Marking-off	(1)
(2) Cutting of plate	Chisel, Hacksaw, Hacksaw machine, Shearing machine	(1)
(3) Pipe work	Flat Pipe, Bending machine	(1)
4 Welding		4
(1) Gas welding	The kinds, characteristic of gas.	(1)
	The construction and function of gas-burner.	(1)
(2) Arc welding	The kinds, characteristic of arc-welding.	(1)
	The construction and function of arc-welding	(1)
5 Machine tool		42
(1) Lathe	Kinds, function and using	(18)
(2) Milling machine	Kinds, function and using	(10)
(3) Shaper	Function and using	(5)
(4) Grinding machine	Kinds, function and using	(2)
(5) Slotting machine	Function and using	(1)
(6) Tool grinding machine	Function and using	(1)

Subject	Detail of Course	Hours
(7) NC(Numerical control machine)	Principle, kains and characteristic of NC machine	(2)
(8) CAD(Control Aided draving)	Principle, kains, function and characteristic of CAD	(2)
(9) CAM(Control Aided Manufacture)	Principle, kains, function and characteristic of CAM	(1)
6 Internal convasion		4
(1) Gasoline Engine	2-stroke 1-cycle Engine 4-stroke 1-cycle Engine Combustion theory	(2)
(2) Diesel Engine	2-stroke 1-cycle Engine 4-stroke 1-cycle Engine Combustion theory	(2)
7 Electric knowledge		10
(1) Electric current	kinds and using of electric current	(2)
(2) Ohm's law	The relation of electric current electric puresu and electric resistance	(4)
(3) Switch board	Maintenance	(1)
(4) Electric motor	The knowledge of Alternating current and Direct current	(3)

2 Machine elements (30)

The subjects are intended to provide the trainee with:

- (1) general knowledge of Screw
- (2) general knowledge of Shaft and Bearing
- (3) general knowledge of Gear
- (4) general knowledge of Power Transmission

Subject	Detail of Course	Hours
1 Screw		8
(1) Metric screw	kind, characteristic and using	(6)
(2) Inch screw	kind, characteristic and using	(2)
2 Shaft and Bearing		8
(1) Shaft	kind, characteristic and using	(4)
(2) Bearing	kind, characteristic and using	(4)
3 Gear		8
(1)	kind, characteristic and using	(8)
4 Power and transmission		6
(1) Power and Power transmission	Physical working and power kind, characteristic and using	(3)
(2) Method of mechanical power transmission	kind, characteristic and using	(1)
(3) Belt	kind, characteristic and using	(1)
(4) Gear	kind, characteristic and using	(1)

3 Machinery Mathematics (40)

The subjects are intended to provide the trainee with:

- (1) Machinery Mathematics ability of the counting $\div - \times \div$ of number and fraction by significant figures.
- (2) Using ability of counting of Trigonometrical function
- (3) Calculation ability of the stress

Subject	Detail of Course	Hours
<p>1 Number and fraction</p> <p>(1) Significant figures</p> <p>(2) Four law of counting method</p> <p>(3) Equation</p>	<p>Treatment of significant figures</p> <p>$\div - \times \div$ counting method of number and fraction by significant figures.</p> <p>A simple equation and the solving method</p>	<p>15</p> <p>(2)</p> <p>(6)</p> <p>(7)</p>
<p>2 Trigonometrical function</p> <p>(1) Basic trigonometrical function</p> <p>(2) General angle trigonometrical function</p>	<p>Limited 90° Using ability of sin, cos, tan, of Trigonometrical function</p> <p>General angle Using ability of sin, cos, tan, of Trigonometrical function</p>	<p>10</p> <p>(5)</p> <p>(5)</p>
<p>3 Stress of material</p> <p>(1) Calculation ability of the stress</p>	<p>Counting of tension stress and compression stress</p> <p>Counting of sheering stress</p> <p>Counting of Bending moment and Torisional moment</p>	<p>15</p> <p>(5)</p> <p>(5)</p> <p>(5)</p>

4 Mechanical material (40)

The subjects are intended to provide the trainee with:

- (1) Special knowledge of characteristic and using for the kinds of metal
- (2) Special knowledge of characteristic and using for the kinds of nonmetal

Subject	Detail of Course	Hours
1 Metal		38
(1) Iron	Production, Element, Characteristic and using	(4)
(2) Cast and special cast	Production, Element, Characteristic and using	(10)
(3) Steel and special steel	Production, Element, Characteristic and using	(16)
(4) Copper and alloy	Kind, Element, Characteristic and using	(6)
(5) Aluminium and alloy	Kind, Element, Characteristic and using	(2)
2 Nonferrous metal		2
(1) Synthetic rubber	Kind, Element, Characteristic and using	(1)
(2) Plastic	Kind, Element, Characteristic and using	(1)

5 Mechanical drawing (30)

The subjects are intended to provide the trainee with:

- (1) General knowledge of Drawing Industry Standard of Mechanical Drawing
- (2) General knowledge of Technical Illustration

Subject	Detail of Course	Hours
I Drawing basis		30
(1) Drawing Industry Standard	An outline of Drawing Industry Standard	(2)
(2) Line	Kind and using of the lines	(2)
(3) Drawing method by Projection	First and third angle projection Kind of the sections, characteristic and using	(4) (18)
(4) Isometrical drawing	The explanation of the isometrical drawings	(2)
(5) Part's drawing	The explanation of the part's drawings	(1)
(6) Assembly drawing	The explanation of the assembly drawing	(1)

The subjects are intended to provide the trainee with:

- (1) Special knowledge of machine assembly and overhaul
- (2) Special knowledge of main machine tool
- (3) Special knowledge of welding
- (4) Special knowledge of heat treatment
- (5) Special knowledge of casting
- (6) Special knowledge of forging

Subject	Detail of Course	Hours
1 Machine assembly and Overhaul		3
(1) Parts	Check method of parts list	(1)
(2) Overhaul	Knowledge of the disassembly assembly adjustment	(1)
(3) Test drive	Method of parts movement, and machine test driving	(1)
2 Main machine tool		20
(1) Lathe	Explanation of work method and cutting tool	(2)
	Cutting theory	(4)
	Cutting condition and the counts	(4)
(2) Milling machine	Explanation of work method and cutting tool	(2)
	Cutting condition and the counts	(2)
(3) Shaper	Explanation of work method and cutting tool	(1)
	Cutting condition and the counts	(2)
(4) Grinding machine	Explanation of work method and cutting tool	(2)
	Explanation of dressing of grindstone	
(5) Tool grindin machine	Explanation of work method	(1)
3 Welding		4
(1) Gas welding	Gas welding theory	(1)
	Explanation of work method and welding condition	(1)
(2) Arc welding	Arc welding theory	(1)
	Explanation of work method and welding condition	(1)
4 Heat treatment		5
(1) Quenching	Quenching theory and condition of steel	(2)
(2) Tempering	Tempering theory and condition of steel	(1)
(3) Annealing	Annealing theory and condition of steel	(1)
(4) Normalizing	Normalizing theory and condition of steel	(1)

Subject	Detail of Course	Hours
5 Casting (1) Common casting	Kinds, constituent and work method	6 (4)
(2) Special casting	Kinds, constituent and work method	(2)
6 Forging (1) Steel	Kinds of Forging work	2 (2)

II Practical training 600

1 Mechanical drawing (60)

The trainee should be able to :

- (1) All kinds of line pull work is completed, and can rectangle, title column.
- (2) Part drawing by one projection, two projection and three projection.
- (3) Part drawing by isometrical drawing.
- (4) Part drawing by using a various sectional drawing.
- (5) Simple assembling drawing.

Subject	Detail of Course	Hours
1 Line pull work		10
(1) Solid line	Exercise subject of horizontal line(0.5mm, 0.3mm) Exercise subject of vertical line(0.5mm, 0.3mm) Exercise subject of angle line(0.5mm, 0.3mm)	(5)
(2) Tapping line	Exercise subject of horizontal line(0.3mm) Exercise subject of vertical line(0.3mm) Exercise subject of angle line(0.3mm)	(2)
(3) Central line	Exercise subject of horizontal line(0.3mm) Exercise subject of vertical line(0.3mm) Exercise subject of angle line(0.3mm)	(2)
(4) Drawing rectangle	Exercise subject of outline Exercise subject of title column	(1)
2 Projection drawing		24
(1) One projection	Subject(plate work, cylindrical work)	(4)
(2) Two projection	Part subject	(4)
(3) Three projection	Part subject	(16)
3 Technical illustration		7
(1) Isometrical drawing	Technical illustration subject by Packing in a box and Technical illustration subject by offset method	(7)
4 Sectional drawing		7
(1) Full section	Subject	(2)
(2) Half section	Subject	(2)
(3) Stepping section	Subject	(2)
(4) Part section	Subject	(1)
5 Assembly drawing		12
(1) Assembly	Subject	(12)

II Practical training 600

2 Finishing (60)

The trainee should be able to :

- (1) Using method the various measurement tool.
- (2) Marking-off works
- (3) Various finishing works

Subject	Detail of Course	Hours
1 Measurement		7
(1) Scale	Measurement practice	(1)
(2) Vernier	Measurements practice of length, depth, bore, and outer diameter	(1)
(3) Inside caliper	Bore measurement	(1)
(4) Outside caliper	Outside measurement	(1)
(5) Micrometer	Bore, outside and depth measurement	(1)
(6) Dial gauge	Setting plane and center	(1)
(7) Block gauge	Setting basic length	(1)
2 Marking-Off		8
(1) Marking-Off pin	Blank layout	(4)
(2) Scribing block	Parts marking-off	(4)
3 Finishing		45
(1) Chisel, Hammer	Chiselling, Cutting off	(10)
(2) Hacksaw	cutting	(1)
(3) Torque wrench	Tightening bolt by torque	(1)
(4) File	Filing	(20)
(5) Hand tap	Tapping	(1)
(6) Die	Screw cutting	(1)
(7) Bench drill	Drilling	(2)
(8) Portable grinder	Mechanical parts grinding	(3)
(9) Two heads grinder	Drill and bit grinding, Mechanical parts grinding	(2)
(10) Scraper	Scraping	(4)

II Practical training 600

3 Machining of Metals (Cutting work) (300)

The trainee should be able to :

- (1) Various Lathe works is ability.
- (2) Various Milling works is ability.
- (3) Work of major sharpening machine is ability.
- (4) Various shaper machine work is ability.
- (5) Slotting machine work is ability.
- (6) Tool Grinding machine work is ability.

Subject	Detail of Course	Hours
1 Lathe		150
(1) Out side cutting	Work setting. Tool setting and adjustment Set up cutting condition. Work measuring	(10)
(2) End side cutting	Tool setting and adjustment. Set up cutting condition Work measuring. Tool setting and adjustment	(5)
(3) Cutting-off	Work setting. Set up cutting condition. Work measuring	(5)
(4) Drill work	Drill setting. Set up cutting condition	(10)
(5) Out-side cutting	Tool setting and adjustment. Set up cutting condition Work measuring	(80)
(6) In-side cutting	Tool setting and adjustment. Set up cutting condition Work measuring	(20)
(7) Screw cutting	Tool setting and adjustment. Set up cutting condition Work measuring	(20)
2 Milling machine		50
(1) Face cutting	Work setting. Tool setting and adjustment Set up cutting condition. Work measuring	(20)
(2) Out-side cutting	Work setting. Tool setting and adjustment Set up cutting condition. Work measuring	(30)
3 Shaper machine		30
(1) Plane work	Work setting. Tool setting and adjustment Set up cutting condition. Work measuring	(30)
4 Grinding		40
(1) Plane work	Work setting. Tool setting and adjustment Set up cutting condition. Work measuring	(20)
(2) Cylindrical work	Tool setting and adjustment and adjustment Set up cutting condition. Work measuring	(20)
5 Slotting machine	Work setting. Tool setting and adjustment Set up cutting condition. Work measuring	10 (10)
6 Tool grinding machine		20
(1) Tool grinding	Tool grinding practice	(20)

II Practical training 600

4 Welding (120)

The trainee should be able to :

- (1) Gas welding instrument using method and gas-welding
- (2) Gas cutting instrument using method and gas-cutting
- (3) Arc welding instrument using method and arc-welding
- (4) Bending machine using

Subject	Detail of Course	Hours
1 Gas welding		60
(1) Cylinder	Cylinder treatment	(2)
(2) Reducing valve	Reducing valve using	(2)
(3) Welding torch	Welding torch using	(2)
(4) Welding flame	Welding flame adjusting	(2)
(5) Welding Bead	Welding bead practice	(50)
(6) Safty	Protector and Safty device using	(2)
2 Gas cutting		10
(1) Cylinder	Cylinder using	(1)
(2) Reducing valve	Reducing valve using	(1)
(3) Cutting torch	Cutting torch using	(1)
(4) Cutting flame	Cutting flame adjusting	(1)
(5) cutting	cutting	(5)
(6) Safty	Protector and Safty device using method	(1)
3 Arc welding		40
(1) electroad	Kinds of electrods and using method	(2)
(2) Curent	Welding curent adjustment	(2)
(3) Voltege	Welding voltege adjustment	(2)
(4) Welding Bead	Welding bead practice	(32)
(5) Safty	Protector and Safty device using method	(2)
4 Bending		10
(1) Plate	Plate bending machine using method	(5)
(2) Pipe	Pipe bending machine using method	(5)

II Practical training 600

5 Mechanical overhaul and assembly (60)

The trainee should be able to :

- (1) Small Diesel-Engine overhaul and assembly.
- (2) Small Gasoline-Engine overhaul and assembly.
- (3) Engine inspection, adjustment and test driving

Subject	Detail of Course	Hours
1 Diesel Engine		20
(1) Main block	Main block overhaul, inspection and assembly	(10)
(2) Attachment	Attachment overhaul, inspection and assembly	(5)
(3) Sub block	Sub-block overhaul, inspection and assembly	(5)
2 Gasoline Engine		30
(1) Main block	Main block overhaul, inspection and assembly	(15)
(2) Attachment	Attachment overhaul, inspection and assembly	(5)
(3) Sub block	Sub-block overhaul, inspection and assembly	(10)
3 Test Driving		10
(1) Test Driving	Engine inspection and adjustment test of test driving	(10)

2) 電子分野

TRAINING COURSE: ELECTRONICS

TRAINING PERIOD: 10 Month (1000h)

TRAINING OBJECTIVE: The course intended to provide the trainee with training of such a level that would enable him to perform assembly, repair and adjustment work for Radio, Television, and Home appliances.

Course	Training hours	Detail of Course
	1000	
1 General subjects	105	
2 Assistant subjects	45	
3 Specialized subjects	850	
I Theoretical training	320	
1 Electronic engineering	(100)	Electron, Semiconductors, Integrated circuits, Electronic circuits Logical circuits, Sequential circuits
2 Electrical theory	(100)	DC circuits, Current and magnetism, Static electricity, Properties of alternating current, AC circuits, Home electronics
3 Electronic equipment	(100)	AM radio receiver, FM receiver, Television, FM receiver, and Video Tape Recorder
4 Circuits diagram and Electrical components	(20)	Fixed resistor, Condenser, Variable resistor, Mechanical parts, Breaker IC and active parts, circuit diagrams
II Practical training	530	
1 Basic work in assembly	(50)	Soldering work, Handling basic tools for repair work, Overhaul work, Assembly work
2 Basic work in measurement and testing method	(100)	Handling of a circuit tester, a signal generator (AM, FM), a sweep generator, a IF generator, a pattern generator, a tequency counter, a strength of electrical a field meter, a distortion meter, a brightness meter, a flutter meter, and a transistors checker.
3 Electronic equipment	(230)	Radio receiver work, TV receiver work, FM receiver work.
4 Home electronics	(150)	Home appliances to apply of electrical heat, Home appliances to apply of electrical light, Home appliances to apply of electrical motor, Home appliances to apply of electrical the other ones.

* Remarks for instruction

- (1) To device the practical training hour which trainee will be needed for his job.
- (2) To train the trainee with close relation practical subjects and theory one.
- (3) To adopt the result of latest electronics field.

TRAINING STANDARD

I Theoretical training 320h

1 Electronic engineering (100)

The subjects are intended to provide the trainee with;

- (1) general knowledge of electrons and its function
- (2) general knowledge of the construction, types, uses, of semiconductors
- (3) general knowledge of integrated circuits
- (4) general knowledge of electronic circuits
- (5) general knowledge of logical circuits
- (6) general knowledge of sequential circuits

Subject	Detail of Course	Hours
1 Electron		4
(1) Electron	Substance and electron, emission of electron	
2 Semiconductors		10
(1) Semiconductors	Insulation, conductor, semiconductor	(2)
(2) Diodes	Types, construction and characteristics of diode	(2)
(3) Transistors	Types, construction and characteristics of transistor	(6)
3 Integrated circuits		16
(1) Type, Shape of IC	Types, Shape of IC	(2)
(2) OP amplifier	Differential amplifier, basic character of OP amplifier	(6)
(3) Power supply IC	Power supply IC	(8)
4 Electronic circuits		30
(1) Oscillating circuits	LC oscillating circuits, crystal oscillating circuit, RC oscillating circuits	(5)
(2) Amplifier circuits	Low frequency circuits, high frequency circuits	(5)
(3) Modulation and demodulation circuit	Type of modulation, amplitude modulation, frequency modulation pulse modulation, amplitude demodulation, frequency demodulation pulse demodulation	(10)
(4) Rectifying circuits and filter circuits	Rectifying method, smoothing circuits, fixed voltage stabilizing power circuits	(6)
(5) Wave-form circuits	Wave form generating circuits	(4)
5 Logical circuits		20
(1) logical circuits	And circuit, Or circuits, Not circuits Flip-flop circuits, counter circuits, shift register	(10)
(2) calculated circuits	Binary operating circuits	(5)
(3) A/D, D/A circuits	Analog-digital converter, Digital-analog converter	(5)
6 Sequential circuits		20
(1) Basic circuits	How to trade the sequential action of basic circuits	(10)
(2) Applied circuits	Motor control circuits	(10)

2 Electrical theory (100)

The subjects are intended to provide the trainee with;

- (1) general knowledge of DC circuits
- (2) general knowledge of current and magnetism
- (3) general knowledge of static electricity
- (4) general knowledge of the properties alternating current
- (5) general knowledge of AC circuits
- (6) general knowledge of home appliances

Subject	Detail of Course	Hours
1 DC circuits		40
(1) Current and voltage	Current, voltage and resistance	(4)
(2) DC circuits	Ohm's law	(4)
(3) Properties of electrical resistance	Resistance ratios in circuits calculations, temperature coefficient	(16)
(4) Power and electric energy	Power, electric energy	(4)
(5) Function of current	Thermal function (Joule's law), magnetic field and magnetic strength (electrolyte, Faraday's law, battery), other functions (Zebeck effect, application of thermo-couple, Peltier's effect, Thomson's effect)	(12)
2 Current and magnetism		10
(1) Properties and functions of magnet	Properties of magnet, coulomb's law, magnetic field and magnetic strength, line of magnetic force, magnetic induction, terrestrial magnetism	(1)
(2) Magnetic functions of current	Magnetic field produced by current, magnetic field produced by coil	(1)
(3) Magnetization phenomenon of iron	Magnetic flux, magnetic permeability, self-demagnetization functions magnetic shield, magnetization curve (B-H), hysteresis loss, permanent magnetic	(2)
(4) Forces acting between current and magnetic field	Force that current receives in magnetic field, magnitude of electromagnetic force, force acting between parallel wires	(2)
(5) Electro-magnetic induction	Electro-magnetic inductive functions, inductive electromotive force caused by coil revolution	(2)
(6) Inductance	Self-induction and self-inductance, mutual induction and mutual inductance, relationship between self-inductance and mutual inductance, basic principles of transformers	(2)
3 Static electricity		10
(1) Properties and actions of electric field	Frictional electricity, static electricity induction, Coulomb's law electric field, line of electric force, lighting phenomenon electroscopes, polarization phenomenon of dielectric, electric potential surfaces, static shielding	(5)
(2) Condensers	Static capacity, connection of condensers, charging current	(5)
4 Properties of alternating current		2
(1) Properties of sine-wave alternating current	Alternating current, sine-wave electromotive force, frequency, phase mean and effective value	(2)

Subject	Detail of Course	Hours
5 AC circuits		8
(1) Basic circuits and their properties	Circuits consisting of only resistor, circuits consisting of only inductance, circuits consisting of only capacity	(2)
(2) Calculations of series circuits	RL series circuits, RC series circuits, RLC series circuits	(2)
(3) AC power	AC power, power factor	(2)
(4) Three-phase alternating current	Three-phase alternating current	(2)
6 Home electronics	Explain some home electronics such as,	30
(1) Rice cooker	hot plate, coffee maker, bread baker, iron which be applied from heat	(8)
(2) Light stand	torch, fluorescent lamp, which be applied from light	(8)
(3) Washing machine	hair dryer, grinder, mixer, razor, fan, ventilator, vacuum cleaner, water pump which be applied from motor,	(8)
(4) Refrigerator	compressor, water cooler which be applied from cooling system.	(6)

3 Electronic equipment (100)

The subjects are intended to provide the trainee with;

- (1) general knowledge of AM radio receiver
- (2) general knowledge of Television
- (3) rough knowledge of FM radio receiver
- (4) rough knowledge of Video Tape recorder

Subject	Detail of Course	Hours
1 AM radio receiver		36
(1) Front circuits and radio wave	Antenna, feeder, radio wave, Transmitter, ionosphere, noise high frequency amplifier	(8)
(2) IF amplifier	Intermediate frequency amplifier	(8)
(3) Demodulation	Demodulation	(8)
(4) AF amplifier	Audio amplifier and power amplifier, speaker and earphone	(8)
(5) AGC circuits	Automatic gain control circuits	(4)
2 Television		48
(1) principal	Picture element, scanning, deflection, synchronize signal, video signal, TV wave	(4)
(2) Front circuits	Tuner circuits	(4)
(3) Video amplifier	Intermediate video amplifier	(4)
(4) Demodulation	Demodulation	(4)
(5) Picture amplifier	Picture amplifier	(4)
(6) Color circuits	Color demodulation circuits Color synchronize circuits	(4)
(7) Vertical circuits	Vertical circuits	(4)
(8) Horizontal circuits	Horizontal circuits	(4)
(9) AGC circuits	AGC circuits	(4)
(10) Power supply circuit	Power supply circuits	(4)
(12) CRT circuits	CRT circuits	(4)
3 FM radio receiver		10
(1) Front circuits	Front circuits	(2)
(2) IF amplifier	IF amplifier	(2)
(3) Demodulation	Demodulation	(2)
(4) AF amplifier	AF amplifier	(2)
(5) AGC circuits	AGC circuits	(2)
4 Video tape recorder		6
(1) Recording	Type of recording	(3)
(2) Mechanism	Mechanism	(3)

4 *Electronic components and circuits diagram (20)*

The subjects are intended to provide the trainee with;

(1) general knowledge of electronic components

(2) general knowledge of circuits diagram

Subject	Detail of Course	Hours
1 Drawing	Reading the circuit diagram as follows a. AM radio receiver b. FM radio receiver c. TV receiver d. Home electronics	8 (2) (2) (2) (2)
2 Electronic Components	Reading the symbol of electronic components and distinctively the electronic components	12
(1) Resistors	Types, film resistor, winding resistor, fixed resistor, solid resistor and others	(2)
(2) Condensers	Types, ceramic capacitors, electrolytic capacitors, mica capacitors, metalized paper capacitors, titanium capacitors, film capacitors, mylar capacitors, and others	(2)
(3) Variable resistors	Types	(2)
(4) Mechanical parts	Mechanical parts of radio, TV and VTR	(2)
(5) Breaker	Breaker and fuse	(2)
(6) IC and active parts	IC, LED and the other active electronic parts	(2)

II Practical training 530

I Basic work in assembly (50)

The trainee should be able to;

- (1) soldering work*
- (2) handle basic tools for repair work*
- (3) overhaul work*
- (4) assembly work*

Subject	Detail of Course	Hours
1 Soldering work		26
(1) Spot soldering	To produce glossy solder joints with solder spread thoroughly	(5)
(2) Wire joining	Method for joining a single wire with standard wire	(5)
(3) Wire with sheet	Method for joining a single wire with sheet	(5)
(4) mounting components	Method for joining components with wire	(5)
(5) assembling coaxial connecting cable	Method for joining a coaxial components connecting cable	(6)
2 Handling the basic tools for repair work	Pench, Nipper, nose plier, plier, nut driver, screw driver, etc	12
(1) Cutting pliers	Method for cutting the tin plate copper wire	(6)
(2) Handling long nose pliers	Method for bending both ends of each copper wire with the long nose pliers	(6)
3 overhaul work	Method for removing body from case, removing panel and chassis, cleaning chassis	6
4 assembly work	Method for reading specifications, minuting copponents on chassis and panel, assembling body into the specified place inside the case	6

2 Basic work in measurement and testing method (100)

The trainee should be able to;

- (1) handling and maintain of circuits tester
- (2) measure voltage, current, power and resistance
- (3) measure characteristics test of semiconductors
- (4) measure high-frequency voltage and current
- (5) measure inductance, static capacity and resistance
- (6) measure strength of electrical field
- (7) measure AM signal
- (8) measure FM signal
- (9) measure Video signal
- (10) measure Stereo signal
- (11) measure brightness
- (12) measure wow flutter

Subject	Detail of Course	Hours
1 Handling circuits tester		10
(1) Basic handling of circuits tester	Remember the name of each part	(2)
(2) DC voltage	Measure DC voltage of some batteries type (Laminate, Alkaline, Mercury, Silver)	(2)
(3) Resistance	Preparation, Calibration, Confirmation O OHM ADJ. Measure resistance of a electric bulb, a transformer and low resistance parts below 10 ohm, condenser and human resistance, and over 10 mega-ohm, diodes and transistor.	(2)
(4) AC voltage	Preparation, Measure AC voltage,	(2)
(5) DC current	Preparation, Measure DC current of radio set.	(2)
2 Signal generation and observation	To be able to generate a wave form of the intended specification from a function generator. Using an oscilloscope, be able to observe the wave form of the intended voltage. Using both of them, master the basic handling of each.	12
(1) Basic handling of a function generator	Name of front knob and rear knob, also be able to handle of basic function.	(2)
(2) Basic handling of oscilloscope	Name of front knob and rear knob, also be able to handle of basic function.	(2)
(3) Luminance projection for preparation	Set the knobs, and luminance lines will appear on the tube. With this as a start, observe the movements of the luminance lines, and turn the knobs to confirm each functions.	(2)
(4) Measuring cables and calibration	Measuring cables and calibration. Adjust the broad attenuation.	(2)
(5) Signal generator	Wave synchronous quiescing. Connect the output of the function generator to the oscilloscope, observing the wave form, and generate outputs such as subsidal wave, triangular wave, rectangular wave.	(2)
(6) Sketching the wave form	Sketching and read each frequency with voltage such as subsidal wave, triangular wave, rectangular wave, sawtooth wave, plusu wave.	(2)
3 Handling of a sweep signal generator	Master observation of the characteristics with a sweep generator.	8
(1) Basic handling of a sweep generator	Name of front knob and rear knob, and diagram.	(2)
(2) Basic connection and input signal setting	Measuring the frequency hand of 1F	(2)

Subject	Detail of Course	Hours
(3) Calibration of maker frequency scale	Calibration of maker frequency scale	(2)
(4) Tuner RF observation	Measuring the a frequency band of RF	(2)
4 Handling of a generator	Adjust the IF circuits using IF generator.	8
(1) Basic handling of IF generator	Name of front knob and rear knob, and diagram.	(2)
(2) Preparation	Setting the knobs and switches, operation confirmation.	(2)
(3) Connection and measurement	Measuring of intermediate frequency amplification circuits	(2)
(4) Adjusting the IF circuits	Adjusting the IF circuits	(2)
5 Handling of a pattern generator	To be able to generate the intended pattern signal and to use it for adjustment.	16
(1) Basic handling of a pattern generator	Name of front knob and rear knob, and diagram. and those handling	(2)
(2) Generation of a alignment pattern	Generate the alignment pattern, and observe it receiving by the composite picture signal by an oscilloscope, and sketch it.	(2)
(3) Generation of a convergence	Generate the convergence pattern, observe it receiving by the composite picture signal by an oscilloscope, and sketch it.	(2)
(4) Generation of a luminance	Generate a luminance pattern, and observe it receiving by the composite picture signal by an oscilloscope, and sketch it.	(2)
(5) Generation of a chrominance	Generate a chrominance signal and observe it receiving by the composite picture signal by an oscilloscope, and sketch it.	(2)
(6) Generation of a color pattern	Generate a color pattern, and observe it receiving by the composite picture signal by an oscilloscope, and sketch it.	(2)
(7) Generation of a raster pattern	Set the color raster selector to generate 8 kinds of color raster signals, and observe them with TV.	(2)
(8) Generation of a color burst signal	Observing a color burst signal and sketch it.	(2)
6 Semiconductors		36
(1) Characteristics of diode	Draw the voltage-current characteristics of diode. and understand the diode.	(4)
(2) Characteristics of zener diode	Draw the voltage-current characteristics of zener diode. and understand the zener diode	(4)
(3) Characteristics of LED	Draw the voltage-current characteristics of LED. and understand LED	(4)
(4) Characteristics of transistor	Draw the voltage-current characteristics of transistor. and understand transistor	(4)
(5) Characteristics of FET	Draw the voltage-current characteristics of FET (n channel type) and understand FET	(4)
(6) Characteristics of SCR	Draw the voltage-current characteristics of FET (n channel type) and understand the trigger current of SCR.	(4)
(7) Characteristics of h parameter	Measure the h-parameter of Transistor (grounded emitter) and understand the current amplitude, input resistor, output, resistor, voltage amplitude.	(4)

Subject	Detail of Course	Hours
(8) bias circuit	Experiment the bias of transistor. and understand the bias of amplitude	(8)
(9) TR amplifier	Understand the TR amplifier. and understand the TR amplitude	(4)
7 measure brightness	Handling of the brightness meter.	2 (2)
8 measure wow flutter	Handling of the wow flutter meter.	2 (2)
9 measure insulator	Handling of mega-ohm-meter	2 (2)
10 measure electrical field	Handling of the electric field meter.	2 (2)
11 measure test of LCR parts	Handling of the LCR meter.	2 (2)

3 Electronic equipment (230)

3-1 radio receiver (100)

The trainee should be able to;

- (1) adjust characteristics for oscilation circuits
- (2) adjust characteristics for demodulation circuits
- (3) adjust characteristics for AM receiver
- (4) adjust characteristics for audio amplifier
- (5) adjust characteristics for recliifier circuits

3-2 television reciever (120)

The trainee should be able to;

- (6) set the optimal condition handling of the front, side rear knobs. and evalate the picture quality
- (7) measure the voltage, waveforms of various section
- (8) replace of the main parts
- (9) diagnose the trouble section

3-3 FM receiver (10)

The trainee should be able to;

- (10) adjust characteristics for frequency modulation (DC-F)
- (11) adjust characteristics for frequency modulation (AC-F)
- (12) adjust characteristics for frequency demondulation
- (13) adjust characteristics for FM reciver

Subject	Detail of Course	Hours
3-1 radio receiver	Be able to repair and adjust for AM reciver.	100
1 oscilation circuits	Measuring of OSC frequency for collector type, and CR type.	8 (8)
2 demodulation circuits	Measuring of collector demodulation circuits.	8 (8)
3 AM receiver		60
(1) Adjusting work	Using both measuring equip and peromed by receiving broadcasting.	(12)
a. 1F	Regulation of Intermediate Frequency.	
b. Tracking	Regulation of Tracking.	
c. Receiving F band	Regulation of Receiving Frequency band.	
(2) Measureing work		(12)
a. Current consumption	Measuring of Current consumption.	
b. Normal voltage	Measuring of each TR	
c. Receiving F band	Measuring of receiving frequency band to use AM-SG.	
d. 1F	Measuring of Intermediate Frequency to use AM-SG.	
e. Maximum sensitivity	Measuring of Maximum sensitivity	
f. Selectivity	Measuring of Selectivity. (one signal method)	
(3) Troubleshooting of simulated defects	Troubleshooting of simulated disorders.	(12)
a. No sound at all	Find out of Mal-TR as case for no sound at all	
b. Cannot receive a broadcast	Find out of Mal-TR as case for Cannot receive a broadcast	
(4) Troubleshooting of simulated defects	Part chart assumed to be faulty. Procedure of check the defects, maesyreing the voltage and current, compare the resistance, inspection by signal injection and signal detection, diagnosis, replacment and inspection of faulty parts.	(12)
(5) Overhauling work	Remove all parts from the panel.	(12)
4 audio amplifier	Measuring the audio amplifier CR coupling AMP. OTL power AMP.	12 (12)

Subject	Detail of Course	Hours
5 rectifier circuits	Measuring the rectifier circuits and filter circuits.	12 (12)
3-2 television receiver	Be able to repair TV.	120
1 setting		18
(1) Receiving channel	Master the method setting an optional channel to each program selector, adjusting it to the frequencies of broadcasting stations from VHF to UHF.	(3)
(2) Purity	Set the actual deflection center.	(3)
(3) Convergence	Set the Convergence magnet. White balance adjustment.	(3)
(4) Picture balance	Correct the positions and size of raster.	(3)
(5) Sublimance	Reproduce well-defined pictures from bright to dark.	(3)
(6) Evaluation of picture quality	Raster size, raster distortion, luminance contrast, focus, interlaced scanning, resolution, definition, reflection, test pattern chart, synchronization demodulator phase, color switching operation, color resolution, color signal discrepancy, hanover line, amplitude gain of G-Y, B-Y and G-Y. G-Y matrix.	(3)
2 measuring	Measuring of the waves and voltages under normal receiving for TV.	20
(1) Voltages		(5)
(2) Waveforms		(5)
(3) Voice IF		(5)
(4) Video IF		(5)
3 replacing	Throughout the exchange every work, to master the correct handling of every parts.	22
(1) CRT		(4)
(2) Fly-back transformer		(4)
(3) Tuner		(4)
(4) Resistors		(2)
(5) Speaker		(2)
(6) IC		(3)
(7) Restoration of general parts		(4)
4 diagnosing	Understand the fault diagnosis process and diagnosis check point.	40
(1) Basic procedure	Change over the color bar generator to the color pattern, and adjust for the normal receiving condition. Measure the wave form and DC voltage in the normal operation condition. Simulated fault work, and measure the wave form and DC voltage in the fault condition at the same points to measure to the normal condition. Simulated fault and diagnosis check.	(10)
(2) Verification of the operation of designated circuit	1 color does not appear. 2 insufficient hue. 3 insufficient color synchronization 4 hanover line	(10)
(3) Trouble diagnosis	The instructor prepares television in simulated conditions. The trainee write the trouble diagnosis card, no replacement of part is performed. Understand the disease of trouble parts resistor off, capacitor off, capacitor shorting, off of a transistor, shorting transistor, short-circuit of a diode, open a diode, open a fuse.	(20)

Subject	Detail of Course	Hours
3-3 FM receiver	Understand the frequency shift index, and side band.	10
1 frequency modulation	Measuring of DC input-frequency output characteristics.	(2)
	Measuring of AC input-frequency output characteristics.	
2 frequency demodulation	Measuring of ratio demodulation system.	(2)
3 FM transmitter	Measuring of wave from with changing sine wave and triangle wave	(2)
4 FM receiver	Measuring of output waveform of IF and demodulation circuits.	(2)
5 Stereo signal	Handling of the stereo signal generator	(2)

4 Home electronics (150)

The trainee should be able to;

- (1) repair home electronics to apply of electrical heat
- (2) repair home electronics to apply of electrical light
- (3) repair home electronics to apply of electrical motor
- (4) digonose the other home electronics

Subject	Detail of Course	Hours
1 Home electronics to apply of electrical heat	Select the home electronics as below; hot plate, coffee maker, bread baker, iron which be applied from heat	25
(1) Reading of diagram	Read the circuits diagram	(5)
(2) Decomposeing	Decmposeing the home electronics	(5)
(3) Repairing	Make simulated defects and find the trouble part of diagram	(5)
(4) Assembling	Assemble the home electronics	(5)
(5) Testing	Confirm the opperation	(5)
2 Home electronics to apply of electrical light	Select the home electronics as below; torch, fluorescent lamp, which be applied from light	25
(1) Reading of the circuit diagram	Read the circuits diagram	(5)
(2) Decomposing	Decomposing the home electronics	(5)
(3) Repairing	Make simulated defects and find the trouble part of circuits diagram	(5)
(4) Assembling	Assemble the home electronics	(5)
(5) Testing	Confirm the operation	(5)
3 Home electronics to apply of electrical motor	Select the home electronics as below; hair dryer, grinder, mixer, razor, fan, ventilator, vacuum cleaner, water pump which be applied from motor.	50
(1) Reading of circuits diagram	Read the circuits diagram	(10)
(2) Decomposeing	Decmposeing the home electronics	(10)
(3) Repairing	Make simulated defects and find the trouble part of diagram	(10)
(4) Assembling	Assemble the home electronics	(10)
(5) Testing	Confirm the operation	(10)
4 The other home electronics	Select the home electronics as below; compressor, water cooler which be applied from cooling system.	50
(1) Reading of diagram	Read the circuits diagram	(10)
(2) Decomposing	Decomposing the home electronics	(10)
(3) Repairing	Make simulated defect sand find the trouble part of diagram	(10)
(4) Assembling	Assemble the home electronics	(10)
(5) Testing	Confirm the opperation	(10)

3) 印刷分野

製版科 (DTPコース) カリキュラム (案)

TRAINING COURSE: Photo Processing

TRAINING PERIOD: 10 months (1,000 hours)

TRAINING OBJECTIVE: The course intends to train trainee to be DTP (Desk Top Publishing) operator by acquiring the overall knowledge of basic printing process, DTP operation and art-work making.

TRAINEE'S READINESS:

SUBJECT

Course	Taining hours	Detail of Course
1 General Subjects	1000	
	105	
2 Assistant Subjects	45	
3 Specialized Subjects	850	
I Theoretical Training	156	
1 Printing Theory	(36)	Cultural role of printing, history of printing, various printing method, outline of plate-making and printing, binding and processing
2 Computer Type-setting Method	(40)	Method of manuscript arrangement, method of calculation for editing, DTP system and peripheral aequipment, method of proof-reading, layout method, method of art-work
3 Photo Processing Method	(40)	Manuscript, method to measure color darkness on manuscript, process camera, photographing method, photo processing method, chromatic color analysis method, computerized scanning method, imposition, plate making
4 Offset Printing Method	(16)	Offset printing machine, adjustment method of printing machine, preparation method, printing method, after printing operation
5 Binding Method	(12)	Paper arrangement, number arrangement, paper folding, paper collator, stitching, cover making, guillotine paper cutting, binding equipment
6 Materials	(12)	Printing paper, printing ink, materials for exposure, binding materials, other materials
II Practical Training	694	
1 Computer Type-setting	(160)	Manuscript arrangement, method of calculation for editing, basic computer type-setting operation, proof-reading, layout, art-making
2 Photo Processing	(78)	Manuscript preparation, color darkness measurement, operation of process camera, photographing, photo processing, image-scanner operation, plate making
3 Offset Printing	(60)	Handling of printing equipment, operation of printing machine, ink adjustment, handling of plate dampering equipment, setting of printing plate, pressure adjustment, paper handling, register adjustment
4 Binding	(40)	Paper arrangement, number arrangement, paper folding, paper collater, stitching, cover making, guillotine paper cutting, handling of binding equipment
5 Graphic Desgin	(200)	Font and image, form size, making of more-than-24-pages-printed-matter, making of job-works
6 Computer Graphics	(156)	2D image processing, 3D image processing, making of more-than-24- pages-color-printed-matter, making of color job-works

* Remarks for instruction

- (1) To device the practical training hour which trainee will be needed for his job.
- (2) To train the trainee with close relation practical subjects and theory one.
- (3) To adopt the result for of latest printing field.

製版科 (DTPコース) シラバス (案)

TRAINING STANDARD

I Theoretical training 156H

1 Printing Theory (36H)

The subjects are intended provide the trainees with;

- (1) General knowledge of cultural role of printing
- (2) General knowledge of printing history
- (3) General knowledge of various printing method
- (4) General knowledge of outline of plate-making and printing method
- (5) General knowledge of binding and processing

Subject	Detail of Course	Hours
1 Cultural role of printing	Role of printed matter, printed matter in the daily life	4
2 History of printing	History of printing in Indonesia, history of printing in Europe, history of offset printing	4
3 Printing method	Definition and theory of printing, printing elements, printing method	8
4 Outline of plate-making and printing method	Kinds and characteristics of relief printing method, intaglio printing method, offset printing method, and screen printing method, kinds and characteristics of plate-making equipment and printing machine	16
5 Binding and processing	Kinds and characteristics of binding methods, names of each part of a book, processing of printed matter, measurement of final product	4

* Remarks for instruction

Basic trainees should be instructed in relation with each other. Basic abilities for problem-solving and application abilities must be instructed also.

2 Computer Type-setting Method (40H)

The subjects are intended provide the trainees with;

- (1) General knowledge of arrangement of manuscript
- (2) General knowledge of method of calculation for editing
- (3) General knowledge of DTP system and peripheral equipment
- (4) General knowledge of proof-reading method
- (5) General knowledge of layout method
- (6) General knowledge of art-work method

Subject	Detail of Course	Hours
1 Method of manuscript arrangement	Handling of manuscript, unification of transcription, how to read type-setting instructions	4
2 Method of calculation for editing	Unit and standard of characters, font size and kinds of font, kinds of editing symbols, calculation of measurement specifications, calculation of deformation and enlargement	10
3 DTP system and peripheral equipment	Structure and function of DTP system, method of connection to peripheral equipment, kinds and usage of application software	8
4 Method of proof-reading	Aims of proof-reading, kinds of proof-reading symbols and terminology, kinds and methods of proof-reading	6
5 Layout method	Plan and design, basics layout method, layout materials, ground plane, layout instruction	4
6 Method of art-work	Kinds and uses of equipment, methods and rules of mount-making	8

* Remarks for instruction

- (1) Presentation and guidance with practical materials are very important to apply and to make trainees be interested in.
- (2) Contents of training should be revised based on technical innovation.

3 Photo Processing Method (36H)

The subjects are intended provide the trainees with;

- (1) General knowledge of manuscript
- (2) General knowledge of measurement of color darkness on manuscript
- (3) General knowledge of process camera
- (4) General knowledge of photographing method
- (5) General knowledge of colors
- (6) General knowledge of chromatic color analysis method
- (7) General knowledge of computerized scanning method (Image scanner)
- (8) General knowledge of photo processing method
- (9) General knowledge of imposition
- (10) General knowledge of plate-making (PS plate)

Subject	Detail of Course	Hours
1 Manuscript	Manuscript management, kinds and management	2
2 Method to measure color darkness on manuscript	Color darkness (concentration) of transparent, color darkness of refraction, kinds and structure of color darkness measurement instruments and how to use them, relations between color darkness and transmissivity and reflectance	4
3 Process camera	Theory, kinds, structure, function and handling of camera, diaphragm, light and lighting	2
4 Photographing method	Structure of light source, focus, exposure and diaphragm, calculation of magnification, calculation of exposure, positives, negatives, selection and characteristics of materials for exposure, safety light, kinds and characteristics of screen	10
5 Photoprocessing method	Developing and after-developing processing method, kinds and uses of chemicals, composition and reaction of developing solution, theory and structure of self-developing equipment, lighting table	4
6 Colors	Concept of colors, classification of colors, three primary colors, color effects, chromatic theory	6
7 Chromatic color analysis method	Theory, various kinds of masking, contact color analysis, direct, indirect, characteristics of light, characteristics of color, mixing colors, filter, range of darkness of mask and resolved negatives	4
8 Computerized scanning method	Theory, structure and kind of computerized scanner	3
9 Imposition	Kinds of imposition	3
10 Plate making	Kinds of plates, light source, plate-making method, surface processing method	2

* Remarks for instruction

- (1) Presentation and guidance with practical materials are very important to apply and to make trainees be interested in.
- (2) Contents of training should be revised based on technical innovation.

4 Offset Printing Method (16H))

The subjects are intended provide the trainees with;

- (1) General knowledge of offset printing machine
- (2) General knowledge of adjustment method of printing machine
- (3) General knowledge of preparation procedure
- (4) General knowledge of printing method
- (5) General knowledge of after-printing procedure

Subject	Detail of Course	Hours
1 Offset printing method	Kinds, structure and function of offset printing machine, printing cylinders (plate cylinder, blanket cylinder, pressure cylinder), plate dampening equipment, ink equipment, paper supply equipment, register adjustment equipment, paper discharge equipment, structure of static electricity removal equipment and safety device, handling, maintenance and inspection of offset printing machine	8
2 Adjustment method of printing machine	Assembly of cylinder, pressure of printing, pressure of roller, other parts of machine	2
3 Preparation procedure	Setting of printing plate, selection of papers, seasoning, paper direction, selection and characteristics of printing ink, preparation of printing ink	2
4 Printing method	Paper handling, adjustment of paper supply equipment and discharge equipment register adjustment, preparation of printing plate, adjustment of printing ink, plate dampening equipment, drying for printed matter	2
5 After-printing procedure	Printing plate maintenance equipment and its management, processing of printing ink, processing of printed matter, maintenance of printing machine	2

* Remarks for instruction

- (1) Presentation and guidance with practical materials are very important to apply and to make trainees be interested in.
- (2) Contents of training should be revised based on technical innovation.

5 Binding Method (12H)

The subjects are intended provide the trainees with;

- (1) General knowledge of paper arrangement
- (2) General knowledge of number arrangement
- (3) General knowledge of paper folding
- (4) General knowledge of paper collation
- (5) General knowledge of stitching
- (6) General knowledge of cover-making
- (7) General knowledge of guillotine paper cutting
- (8) General knowledge of binding equipment

Subject	Detail of Course	Hours
1 Paper arrangement	Quality and thickness of printing paper, arrangement of paper according to its direction and hardness, inspection and how to handle printed papers	1.5
2 Number arrangement	How to count and pile papers, number of copies and pages	1.5
3 Paper folding	How to fold papers	1.5
4 Paper collation	How to collate more than 24-pages printed matter and missing pages	1.5
5 Stitching	Binding margin and wire thickness, various stitching method according to the binding thickness and folding method	1.5
6 Cover making	Kinds and characteristics of covers	1.5
7 Guillotine paper cutting	Handling and maintenance of guillotine paper cutting machine, how to cut and pile papers	1.5
8 Binding equipment	Kinds and uses of binding equipment	1.5

* Remarks for instruction

- (1) Presentation and guidance with practical materials are very important to apply and to make trainees be interested in.
- (2) Contents of training should be revised based on technical innovation.

6 Materials (12H)

The subjects are intended provide the trainees with;

- (1) General knowledge of printed materials
- (2) General knowledge of printing ink
- (3) General knowledge of materials for exposure
- (4) General knowledge of binding materials
- (5) General knowledge of other materials

Subject	Detail of Course	Hours
1 Printed materials	Raw materials of paper and its manufacturing method, kinds of paper and its uses and characteristics, standards and measurement, length and width of printing paper, others materials for printing	2
2 Printing ink	Raw materials of ink and its manufacturing method, uses characteristics of ink, uses of supporting materials	4
3 Materials for exposure	Kinds of film and photographics paper and characteristics, PS plate, characteristics and uses of other plate materials	4
4 Binding materials	Kinds and uses of adhesive and binding materials	1
5 Other materials	Roller, branket, packing, spray powder, dampening water, etc.	1

* Remarks for instruction

- (1) Presentation and guidance with practical materials are very important to applg and to make trainees be interested in.
- (2) Contents of training should be revised based on technical innovation.

II Practical training 694H

1 Computer Type-setting Operation (160H)

The trainees should be able to;

- (1) Manuscript arrangement
- (2) Calculation for editing
- (3) Computer type-setting operation
- (4) Proof-reading
- (5) Layout
- (6) Art-work making

Subject	Detail of Course	Hours
1 Manuscript arrangement	Arranging manuscript	6
2 Calculation for editing	Justification, editing of ruled lines, editing of deformed and enlarged font, editing of more than 24-page printed matter, editing of job-work	32
3 Computer type-setting operation	Handling of computer type-setting machine, mouse operation, handling of floppy disk, converting data, handling of peripheral equipment, networking, handling of application software	68
4 Proof-reading	Proof-reading, how to use proof-reading symbols	6
5 Layout	Handling of equipment, layout of posters and pamphlets, scaling, trimming	24
6 Art-work making	Handling of equipment, basic drafting, mount making, lettering, pasting	24

* Remarks for instruction

- (1) English expressions like icon, file menu etc. must be instructed for trainees to understand steadily.
- (2) Contents of training should be revised based on technical innovation.

2 Photo Processing Operation (78H)

The trainees should be able to;

- (1) Preparation of manuscript
- (2) Measurement of color darkness
- (3) Operation of process camera
- (4) Photographing
- (5) Photo processing
- (6) Operation of computerized scanning machine (Image scanner)
- (7) Printing plate making

Subject	Detail of Course	Hours
1 Preparation of manuscript	Handling monochrome manuscript and color manuscript	4
2 Measurement of color darkness	Handling of transparent color darkness measure and reflect color darkness measure, color darkness measurement of transparent, manuscript and reflect manuscript, determination of proper exposure	6
3 Operation of process camera	Handling of camera, handling of lenses and diaphragm, determination of angle and distance of light source	8
4 Photographing	Measuring and focusing, handling of film and contact-screen, outlined and meshed photograph, main exposure, highlight and shadow exposure, measurement of color darkness	24
5 Photo processing	Handling of chemicals, developing and fixing process, rinsing and drying	12
6 Operation of computerized scanning machine	Handling image scanner, color resolution using Image scanner	12
7 Printing plate making	Handling of PS plate, operation of plate-making machine, exposure and development processing, maintenance process of PS plate	12

* Remarks for instruction

Contents of training should be revised based on technical innovation.

3 Offset Printing Operation (60H)

The trainees should be able to;

- (1) Handling of offset printing equipment
- (2) Operation of printing machine
- (3) Ink adjustment
- (4) Handling of plate dampening equipment
- (5) Setting of printing plate equipment
- (6) Pressure adjustment
- (7) Paper handling
- (8) Register adjustment

Subject	Detail of Course	Hours
1 Handling of printing equipment	Handling and maintenancs of printing equipment	2
2 Operation of offset printing machine	Piling paper and handling of paper supply equipment, handling of paper discharge equipment, operation of printing machine, maintenance, inspection	16
3 Ink adjustment	Adjustment of ink pot, roller, printing ink and amount of ink, handling of supporting materials	10
4 Handling of plate dampening equipment	Setting of water pole, adjustment of water amount to the plate, determination of pressure to the printing plate, preparation of etching liquid, after-printing maintenance process of water pole and roller	10
5 Setting of printing plate equipment	Determination of pressure to the roller and rubber cylinder, setting of printing plate	5
6 Pressure adjustment	Handling of branket, making of rubber cylinder, adjustment of pressure cylinder, adjustment of three cylinders (plate cylinder, rubber cylinder, pressure cylinder)	10
7 Paper handling	Handling of various sizes of papers, counting papers, carrying papers	3
8 Register adjustment	Determination of positioning on the printing paper, positioning of register mark, determination of printing order	4

* Remarks for instruction

- (1) Instruction must be careful with working safely.
- (2) Contents of training should be revised based on technical innovation.

4 Binding Operation (40H)

The trainees should be able to;

- (1) Paper arrangement
- (2) Number arrangement
- (3) Paper folding
- (4) Paper collation
- (5) Stitching
- (6) Cover making
- (7) Guillotine paper cutting
- (8) Handling of binding equipment

Subject	Detail of Course	Hours
1 Paper arrangement	Fixing of printed sheet paper and arranging it at the stitching side, arranging of folded paper	5.5
2 Number arrangement	Counting, piling and carrying papers	3
3 Paper folding	Hand-folding, machine-folding, handling of folding machine	5.5
4 Paper collation	Paper collation, inspection of missing pages and disarranged pages according to the alignment marks on the stitching side	5.5
5 Stitching	Handling of wire binding machine and wireless binding machine	5.5
6 Cover making	Wrapped cover	5.5
7 Guillotine paper cutting	Hand-cutting, handling of guillotine paper cutting machine, cutting according to the standard size	5.5
8 Handling of binding equipment	Handling and maintenance of binding equipment	4

* Remarks for instruction

- (1) Instruction must be careful with working safely.
- (2) Contents of training should be revised based on technical innovation.

5 Graphic Design (200H)

The trainees should be able to;

- (1) Font selection
- (2) Form size setting according to the paper size
- (3) Making of more than 24-page printed matter
- (4) Making of job-works printed matter

Subject	Detail of Course	Hours
1 Font and image	Font family, image change according to the font selection	12
2 Form size	Paper size and font size, paper size, form size and composing style, typography	20
3 Making of more than 24-page printed matter	Layout of characters and photos using editing/layout software, pagination, imposition	80
4 Making of job-works printed matter	Making of logo, illustration, etc. using illustration software, making of catalogues and pamphlets	88

* Remarks for instruction

(1) Don't stick to tasks which mentioned above.

Tasks must be instructed selectively based on local needs and company needs in order that trainee would be able to use their skill effectively.

(2) Instructors must make effort to get good ideas so that trainees make full use of their originality.

6 Computer Graphics (156H)

The trainees should be able to;

- (1) 2D image processing
- (2) 3D image processing
- (3) Making of more than 24-page color printed matter
- (4) Making of color job-works printed matter

Subject	Detail of Course	Hours
1 2D image processing	Input of graphics and Images using image scanners, outline font, shrinking, enlarging, deforming and rotating of characters, tracing graphics, coloring the specified area, adjusting color scaling of images, cutting of images, input resolution and output quality, saving as file format	62
2 3D image processing	Handling of 3D image processing software	8
3 Making of more than 24-page color printed matter	RGB and CMYK, color resolution, adjustment of color tone, making of more than 24-page color plate using editing and layout software	50
4 Making of color job-works printed matter	Making colored job-works using illustration software and image processing software	36

* Remarks for instruction

(1) Don't stick to tasks which mentioned above.

Tasks must be instructed selectively based on local needs and company needs in order that trainee would be able to use their skill effectively.

(2) Instructors must make effort to get good ideas so that trainees make full use of their originality.

JICA