

Type	Training Institutions	Town	State
POL	Polytechnic Sabak Bernam	Sg Air Tawar	Selangor
POL	Polytechnic Tanjung Malim	Behrang	Perak
POL	Polytechnic Melaka	Melaka	Melaka
POL	Polytechnic Merlimau	Merlimau	Melaka
SDC	Kedah Industrial Skills & Management Centre	Sungai Petani	Kedah
SDC	Penang Skills Development Centre	Bayan Lepas	PP
SDC	Sabah Skills and Technology Centre	Kota Kinabalu	Sabah
SDC	Perak Entrepreneur & Skills Development Centre	Ipoh	Perak
SDC	Selangor Human Resource Development Centre	Shah Alam	Selangor
SDC	Melaka Industrial Skills Development Centre	Batu Berendam	Melaka
SDC	Johor Skills Development Centre	Johor Baharu	Johor
IKTBN	Institut Kemahiran Tinggi Belia Negara Sepang	Sepang	Selangor

Annex 4: Dual System Project

Introduction

Technical Education and Vocational Training [TEVT] in Malaysia focuses on developing young Malaysians and adolescents to become **k-workers**, top performers in their respective jobs, capable to succeed in an increasingly competitive global market. At least a part of their industry-oriented training must be conducted at the workplace under actual working conditions.

The rapidly changing specific manpower needs can only be efficiently determined by and within the companies themselves, because that is where the changes take place. Public and private training institutions always lag behind technological advancement, hence, they cannot equip the trainees with the skills which are actually required at the workplace. **High-tech training can no longer be provided without involvement of the industry.** Therefore a strong and committed partnership between the private sector and training institutions must form the basis of a "dual" TEVT system to ensure efficient and economically affordable training solutions. For these reasons the **Eighth Malaysia Plan** and **The Third Outline Perspective Plan** place high priority on the establishment of a dual TEVT system.

The Project Purpose and Rationale of Approach:

Project Purpose:

Malaysia's workforce potential benefits from a TEVT system which has been improved by the enhancement of a dual training approach

Rationale of Approach:

Provide tested and proven concepts and recommendations to the Economic Planning Unit on how to improve TEVT in Malaysia by intensifying the interaction between the industry (including SMEs) and training institutions.

The 5 Components of the Project

Five major components of the project have been defined which serve as guidelines for any further action to be taken.

Component 1 deals with the creation of a dual TEVT culture and indicate the general direction and main thrust of the project by increasing the direct involvement of the industry and SMEs in TEVT at all levels.

Component 2 aims at developing an improved concept for skills standards, a format for occupational profiles and the development of quality curricula and effective instructional materials.

Component 3 focuses on technical teacher and instructor training covering pre-service training (initial training) as well as in-service training (further training).

Component 4 aims at strengthening crucial elements within the network of TEVT to improve efficiency and effectiveness of training.

Component 5 addresses the social value and reputation of work and training in general. Since social values strongly influence perceptions of and attitudes towards work and training, they form the psychological basis of the national endeavour to develop k-workers by reinforcing the aspiration of all individuals to actively participate in work and training

For the implementation of the Dual System for training in Malaysia, the Economic Planning Unit (EPU) in the Prime Minister's Department has established a decision making structure, consisting of "Technical Committees" (TC), the "DSP Steering Committee" (SC) as well as the "National Development Planning Council" (NDPC).

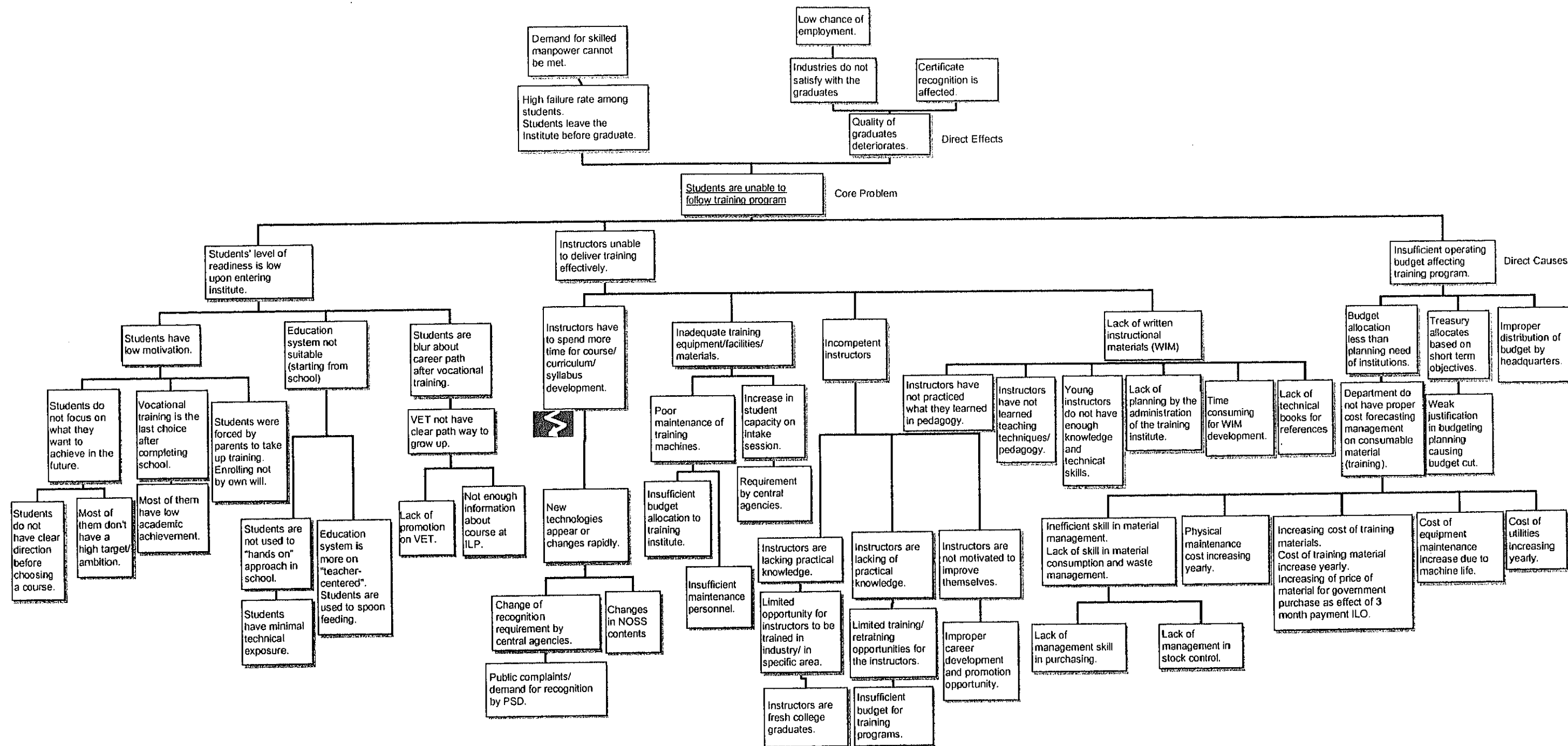
In October 2002, the **DSP Steering Committee** (SC), consisting of representatives of all stakeholders involved in TEVT and chaired by the Deputy Director General (Sectoral) of the EPU has established **Technical Committees** (TC). These Technical Committees have the mandate to assist the DSP Steering Committee in monitoring, guiding and evaluating the dual system implementation activities, processes and results and to provide professional expertise and specialist advice.

Each TC comprises a TC chairman, co-chairman, representatives of the institutions and organisations involved and a DSP representative. The Technical Committees meet on a monthly basis and their chairmen report to the Steering Committee every three months.

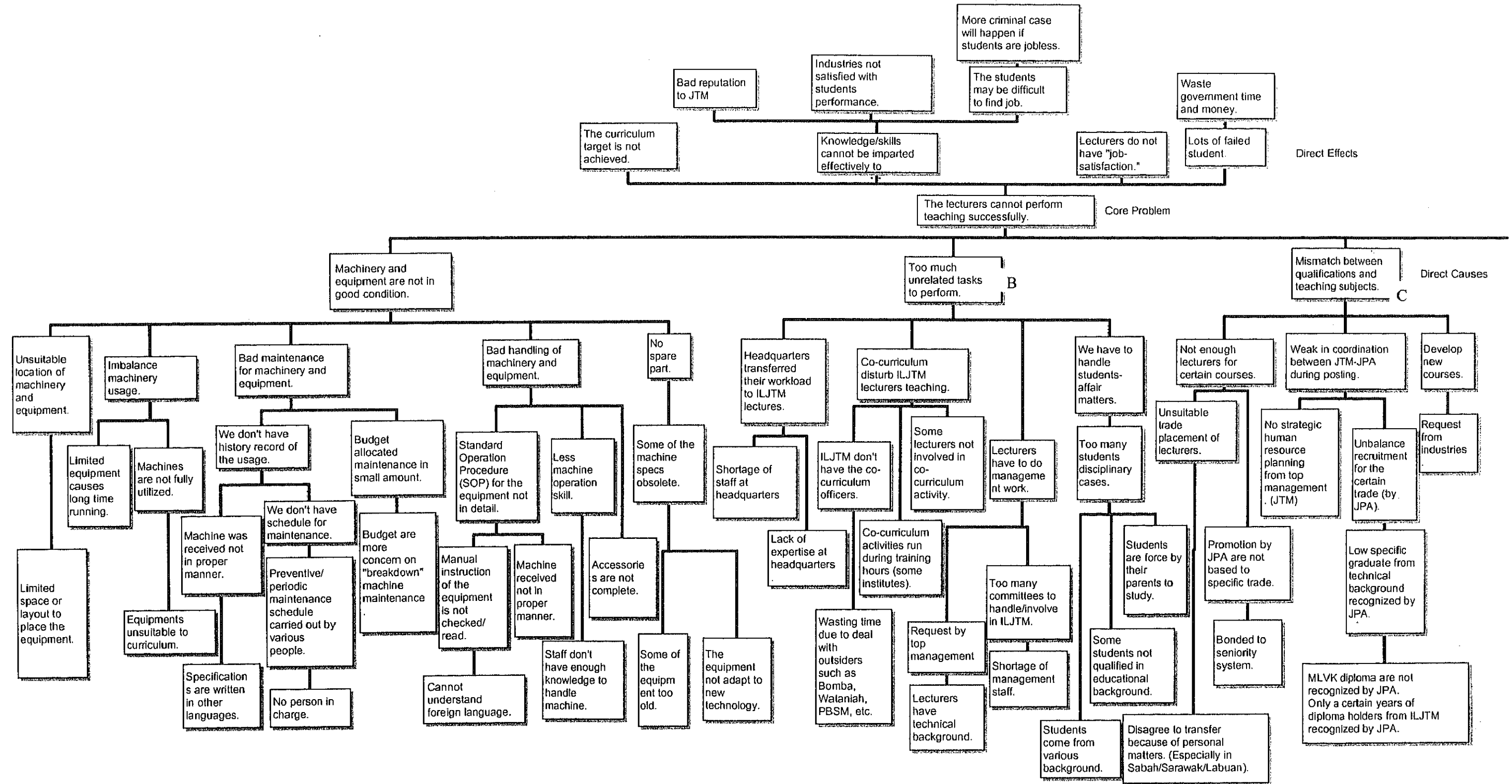
The Economic Planning Unit (EPU) who chairs the Steering Committee reports to the **National Development Planning Council** (NDPC), consisting of the Secretary Generals of all senior Ministries (and EPU), informs them about the progress of the project and seeks their approval whenever there are policy or major budget decisions required. The EPU then reports back on these decisions to the Steering Committee and the Chairmen of the Technical Committees as members of the Steering Committee report back to their Technical Committees.

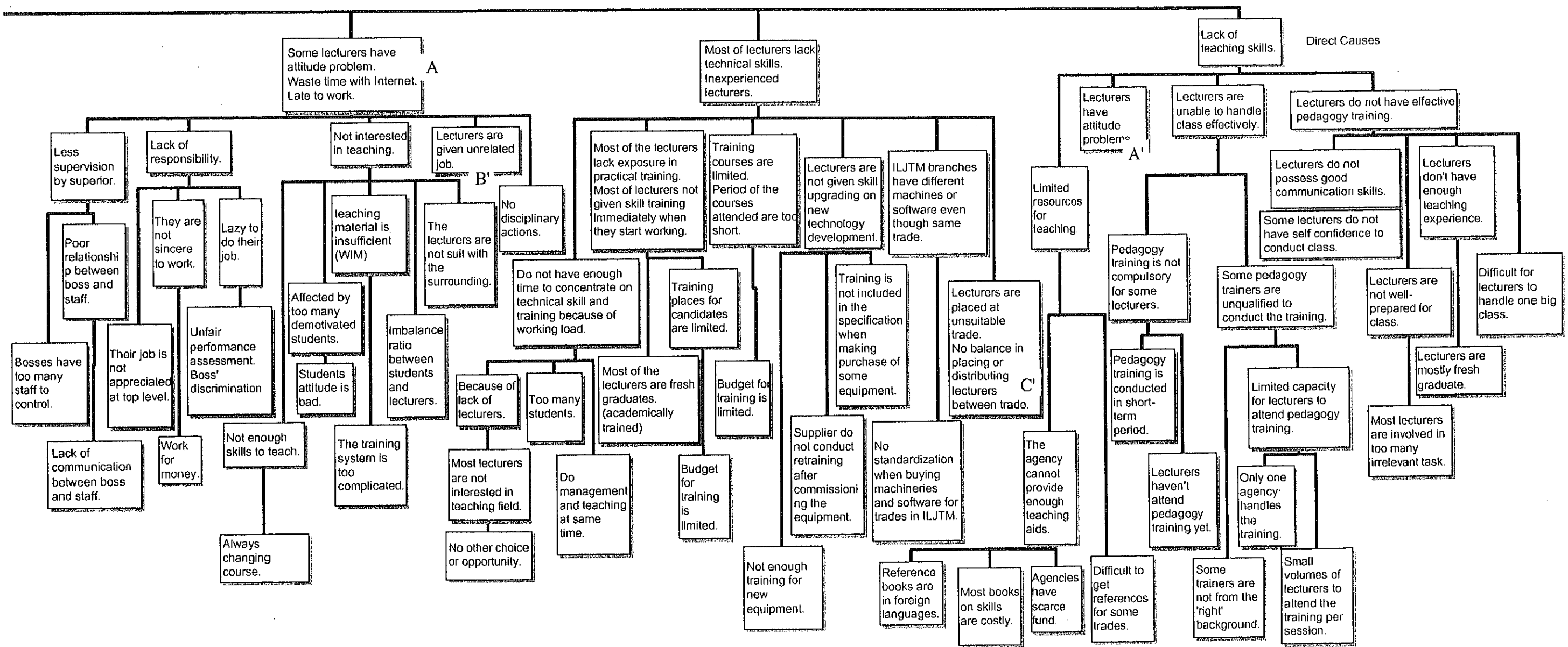
Source: Summarised from <http://www.dualsystemproject.net>

Annex 5: Problem Trees (PCM Workshop)

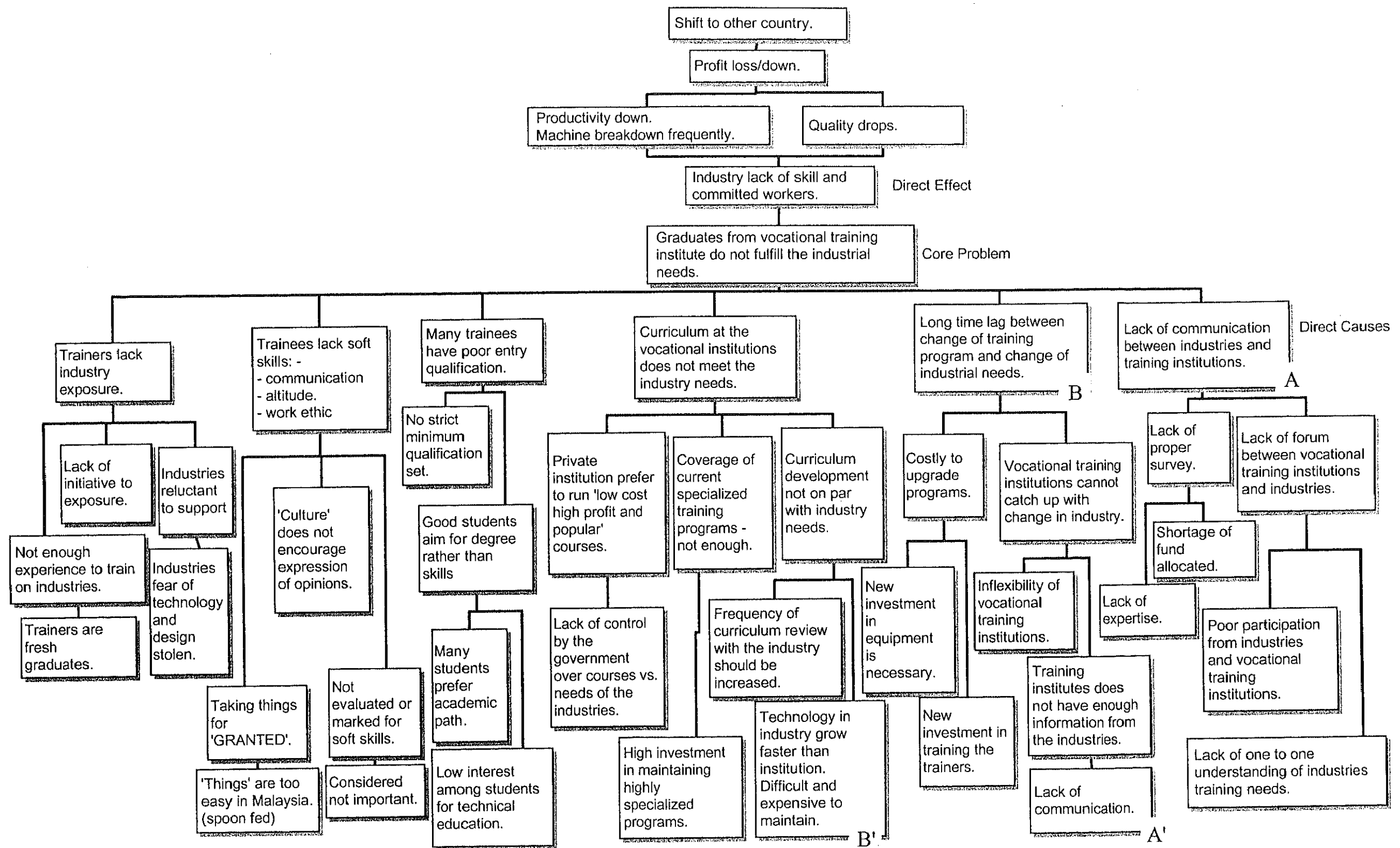


Problem Tree (Workshop 1)





Problem Tree (Workshop 2)



Problem Tree (Workshop 3)

Annex 6: DACUM

DACUM (Developing A Curriculum) is a relatively new and innovative approach to occupational analysis (copyrighted 1990, by the Center for Education and Training for Employment at The Ohio State University in Columbus, Ohio). It has proven to be a very effective method of quickly determining, at relatively low cost, the competencies or tasks that must be performed by persons employed in a given job or occupational area.

The profile chart that results from the DACUM analysis is a detailed and graphic portrayal of the skills or competencies involved in the occupation being studied. The DACUM analysis can be used as a basis for (1) curriculum development, (2) training needs assessments, (3) student achievement records, (4) worker performance evaluations, (5) competency test development, and (6) job descriptions.

DACUM has been successfully used to analyze occupations at the professional, technical, skilled, and semiskilled levels. DACUM operates on the following three premises: (1) expert workers can describe and define their job more accurately than anyone else, (2) an effective way to describe a job is to define the tasks that expert workers perform, and (3) all tasks, in order to be performed correctly, demand certain knowledge, skills, tools, and attitudes.

A carefully chosen group of about 8-10 experts from the occupational area form the DACUM committee. Committee members are recruited directly from business, industry, or the professions. The committee works under the guidance of a facilitator for two days to develop the DACUM chart. Modified small-group brainstorming techniques are used to obtain the collective expertise and consensus of the committee.

The DACUM committee is carefully guided through each of the following steps by the facilitator:

- (a) Orientation
- (b) Review of job or occupational area description
- (c) Identification of general areas of job responsibility
- (d) Review and refinement of task statements
- (e) Sequencing of task statements
- (f) Identification of general knowledge and skill requirements of the occupation, tools, equipment, supplies, and materials used, and desirable worker traits and attitudes
- (g) Other options, as desired (i.e., identification of entry-level tasks)

Because of their current occupational expertise, committee participants do not need to make any advance preparations. Participants on past DACUM committees have, without exception, found the activity to be a professionally stimulating and rewarding experience.

Downloaded on November 19, 2004 from:

http://www.ndsu.nodak.edu/instruct/stammen/uswest/about_grant/html/dacum.htm

Annex 7: Entrance Qualifications for Public Sector VTIs

Ministry	Institute	Qualifications
MOHR	ITIs	<p>Passed SPM</p> <p>Pass in Bahasa Malaysia</p> <p>Additional 3 credits or passes either in Mathematics, Science, Chemical, Physics and English (depending on type of courses) – 1 to 2 year training</p>
	ADTECs	<p>Aged 17 – 30 only</p> <p>Passed SPM</p> <p>Credits or Pass in Bahasa Malaysia, Mathematics/Additional Mathematics, Science/Physics and English and one other subject – 3 year training</p> <p>SKM Level 1 or 2 certification and 5 credits or pass in SPM – 2 year training</p>
	CIASST & JMTI	<p>Aged 18 – 26 only</p> <p>Passed SPM (all courses)</p> <p>Credits in 5 subjects i.e., Bahasa Malaysia, English, Mathematics/Additional Mathematics, Science/Physics and any other subject – 3 year training</p> <p>SKM Level 2 certification and 5 credits in SPM – 2 year training</p>
MoHEd	Poly-technics	<p>Passed SPM/SPVM</p> <p>Pass in Bahasa Malaysia</p> <p><u>Certificate Courses</u></p> <p>Credit in Mathematics or Additional Mathematics and a pass in any one of the subjects; or</p> <p>Pass in Mathematics or Additional Mathematics and a credit in any one of the other subjects</p> <p><u>Diploma Courses</u></p> <p>Pass in English</p> <p>Credit in any of these subjects: Mathematics, Modern Mathematics or Additional Mathematics</p> <p>Credits in any four of the other subjects</p>
	Community Colleges	<p>Passed SPM/SPVM</p> <p>Pass in the Bahasa Malaysia</p> <p>Have sat for either Mathematics or Additional Mathematics</p> <p>Have sat for any Science-related or Technical subjects</p>
MECD	MARA Skills Institutes	<p>Bumiputera only</p> <p>Aged 18 – 40 only</p> <p>Passed SPM/SPVM</p> <p>Pass in the Bahasa Malaysia (sufficient for non-technical courses)</p> <p>Pass in Mathematics/Additional Mathematics and Science/Physics (for technical courses)</p> <p>Some courses are only open to male applicants</p>

Ministry	Institute	Qualifications
MYS	Youth Skills Institutes	<p><u>Certificate Courses</u> Aged 17 – 24 only Passed SPM/SPVM Pass in Bahasa Malaysia, Mathematics/Additional Mathematics, Science/Physics and English</p> <p><u>Diploma Courses</u> Aged 17 – 30 only Passed SPM/SPVM Credits in Bahasa Malaysia, Mathematics/Additional Mathematics and Science/Physics with a Pass in English SKM Level 1 or 2 certification required for certain courses</p>

