Tertiary and Vocational Education Commission

Study of Effectiveness of NVQ5/6 Diploma Programmes Conducted in Colleges of Technology

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ABBREVIATIONS AND ACRONYMS

Term	Definition
TVEC	Tertiary and Vocational Education Commission
TVET	Technical and Vocational Education and Training
NVQ	National Vocational Qualification
NAITA	National Apprentice and Industrial Training Authority
NYSC	National Youth Services Council
VTA	Vocational Training Authority
ADB	Asian Development Bank
CoT	College of Technology
CPSC	Colombo Plan Staff College
DTET	Department of Technical Education and Training
ICT	Information Communication Technology
NYSC	National Youth Services Council
SDP	Skills Development Project
TCs	Technical Colleges
TEDP	Technical Education Development Project
UNDP	United Nation Development Project
ILO	International labor Organization
JAICA	Japan International Cooperation Agency
UK	United Kingdom
ATI	Apprenticeship Training Institute
AETI	Automobile Engineering Training Institute
lET	Institute of Engineering Technology
RVTCs	Rural Vocational Training Centers
SVTCs	Special Vocational Training Centers
DVTCs	District Vocational Training Centers
NVTCs	National Vocational Training Centers
NAITAC	National Industry Training Advisory Committees
NDT	National Diploma in Technology
NCT	National Certificate in Technology
NCIT	National Certificate in Industrial Technician

ABSTRACT

This Report presents the findings of effectiveness of NVQ5/6 Diploma Programmes conducting in Colleges of Technology.

The Department of Technical Education & Training conducts a wide range of training courses throughout the country. Nine (9) Technical Colleges (TCs) in nine provinces out of 38 TCs were upgraded to College of Technology (COT) to conduct NVQ level 5 & 6 diploma courses in 2009. Eleven (11) new technician programs curricula (NVQ 5& 6) were developed according to TVEC approved standards & the NVQ frame work.

The objectives of the Study were to (i) identify the curriculum of NVQ 5 & 6 programmes meet the industrial needs (ii) identify the factors facilitating & obstructing the NVQ 5 & 6 students & lectures in the teaching learning process (iii) identify the employability of Diploma holders and to identify the possible reforms & improvement in NVQ 5 & 6 programmes

Under the Study, A sample size of 96 of Passed out students in year 2010 & 2011 were drawn from those who have completed NVQ 5/6 Summative assessment representing the five CoTs. Here, 4 courses were taken for the study out of which two courses in highest pass rate(NVQ 5 food technology & ICT)- & two courses in lowest pass rate (NVQ 5 Auto mobile & construction technology). 24 samples were selected from each course to make a total of 96 samples.

A sample of 120 students was drawn from those who are following NVQ 5/6 Diploma Programmes at present in same technology area mentioned above from five CoTs.

5 directors have drawn from CoTs to represent the head of institutes. 12 companies were drawn to representing the selected technological areas and 24 Lecturers were drawn from four Technology areas.The method of data collection was based on a questionnaire. Four questionnaires were developed intend for gathering primary data from

- Passed out students of NVQ 5/6 Diploma programmes
- Students following the NVQ 5/6 Diploma Programmes
- Head of the institutes
- Industry representatives
- Lecturers (Technology specific)

The questionnaire is comprised of structured questions as well as open ended questions. The pilot data collection was conducted with each questionnaire for purpose of validation. Based on the experience of the pilot survey, the questionnaire was further modified and presented to the TVEC for approval. The questionnaire has been sent and collected by post.

The subsequent data analysis reveals the following findings:

•Male participants dominate the trainee population of NVQ5/6 Diploma Programmes.

•Among five awareness methods, Data showed that information about courses conveyed by friends are more effective than other methods.

•47% of the respondents were mentioned that there is a social recognition for NVQ5/6 Diploma Programmes and while22% has mentioned that there is no social recognition for NVQ5/6 Diploma.

•For some NVQ5/6 programmes have high demand but for these high demanding courses comparatively less no students are taken. In some courses student's attendance capacity is comparatively low than required intake capacity.

•All most all academic staff members have degree qualification or Diploma qualifications. None of certificate holders are teach for NVQ5/6 Diploma Programes. All the members of staff of NVQ5/6 Diploma programmes were improved their industrial experience by the industry based skill upgrading training programme in locally & internationally. So academic staffs of NVQ5/6 Diploma programmes are fully qualified in their profession.

•36% Academic Staff were not given the in service training. Out of staff members who were participated for the in-service training 66.7% stated that the training was not that much relevance to the subjects they are teach.

•The majority of Academic staff in Diploma Programmes are newly recruited & have less teaching experiences. Not only them but also well experienced staff members are also involve in teaching in these courses.

•42% of lecturers are used all the methods of teaching

•Attendance of students is favourable because it is compulsory to maintain their attendance at 80% for the eligibility of summative assessment and also students who attended lecturers regularly showed best results rather than others.

•Teaching learning process is mostly inspected by internally. External infection is carrying in low level.

•There are no teacher guides or trainer guide published upto date.

•According to the student's view allocations for stationaries and Field visit not sufficient. On the other hand raw materials required for practical classes are not supplied on time & inadequate but Multimedia Facilities are adequate. 40.27 % of students mentioned that they are not satisfied with practical activities.

•71% of Academic staff was not satisfied about summative assessment and 60 % of CoT Directors have stated that they are not satisfied about summative assessment.

•There is not sufficient Registered Assessors for these technological areas.

•28.6% of academic staff members and 60 % of CoT Directors have stated that they are not much satisfied about student's Industrial Training and 50% of academic staff members have mentioned that they are not satisfied about industrial training.

•85% of lectures stated that syllabus should have to be revised.

•93% of lectures mentioned the syllabuses of NVQ5/6 diploma programmes are compatible with market demand.

•52% of Students have passed the written exam to obtain eligibility for the final assessment in 2010 & it was declined in year 2011 as 43% in first semester & 41% in second semester.

•32.3% passed out students are employed and 67.6% are not employed. Out of employees 95.2% of employees are in relevant industries in suitable position and stated that the knowledge of theories and practicality obtained from the course is sufficient for their job.

•16% of students who have obtained both NVQ5/6 and A/L qualification are employed. 34.6 % of students have the same qualification mentioned above are following the degree courses at UNIVOTEC. In this series 6.25% are following NVQ6 Programmes while others are not employed. Students who have obtained both NVQ5/6 and O/L qualifications are not employed as with A/L qualifications.

•Around 33% of passed out students mentioned that the employability skill subjects they followed had been an additional qualification for their employment and knowledge of theories and practicality obtained from the subject is more relevant for their job.

•75% of industries are aware about NVQ 5/6 courses and job position which they should recruit. 63% of industries have been identified NVQ5/6 Diploma as recruit qualification for different job position. Majority of the industries got the awareness about NVQ5/6 Diploma programmes through the trainees.

•Employers/Industries suggested to training providers to focus more on practical training within the training period, Attitude development of trainees as punctuality & team work and Training on modern technology.

•Though the information Management system is existing, the system does not provide required information like employability data when taking decision in different courses.

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CHAPTER 01

INTRODUCTION

National Vocational Qualifications are designed to measure the competency of different vocational skills. The intention of having NVQ is to produce Sri Lankan workforce globally competitive, in order to suit Industry specific, through a standardized Technical and Vocational Education system.

The main objectives of setting up of NVQ are,

- To recognize Vocational skills locally and internationally
- To match and cater Vocational training/ skills with market demand
- To recognize the certificates those possessed through the NVQ system
- To create an internationally competitive workforce in Sri Lanka

The National Vocational Qualification Framework of Sri Lanka (NVQSL) has been established to support the efforts of fulfilling above objectives of NVQ.The National Certification System for the Technical & Vocational Education & Training (TVET) sector of Sri Lanka was introduced by Tertiary & Vocational Education Commission (TVEC), in association with Skills Development Projects(SDP) funded by the Asian Development Bank (ADB). It is called the National Vocational Qualifications (NVQ) framework with effect from January 2005.The NVQSL provides the opportunity for sustainable, strategic solutions for national training needs as well as for the employment mismatch for both the formal and the non-formal sectors. The NVQSL will easily be able to achieve national and international recognition for qualifications, knowledge, skills and attitudes of Sri Lankans in an increasingly globalized and competitive world.

At present there are 38 Technical Colleges scattered throughout Sri Lanka. These institutions are managed by Department of Technical Education & Training which functions under the Ministry of Skills Development, Vocational and Technical Education. The Department of Technical Education & Training conducts a wide range of training courses throughout the country. Nine (9) Technical Colleges (TCs) in nine provinces out of 38 TCs were upgraded to

College of Technology (CoT) to conduct NVQ level 5 & 6 diploma courses in 2009. Eleven (11) new technician programs curricula (NVQ 5& 6) were developed according to TVEC approved standards & the NVQ frame work.

Most of the certificate level courses conducted by DTET were evaluated for their effectivenessby the DTET or other vocational educational institutes but no such evaluation carried out for NVQ level 05 & 6 diploma programs up to now. These research findings would provide facts to full fill the above need.

When considering the student involvement for NVQ 5 & 6; number of student applied, and participated figures revealed that an increasement in 2009, 2010 but not such increment shows in 2011.

Statistical hand book on technical education 2011 & audit query done by Audit General's Department show that 52% of students have passed the written exam to obtain eligibility for the final assessment in 2010 & it was declined in year 2011 as 29%. Based on the audit report some laboratory equipments which were donated by the TEDP project were under-utilized.

Technical Educational and Development Project has spent Rs. 87,802,162 for training equipment of NVQ 5/6 Diploma Programmes.

On the other hand technical sector has a high demand for skilled middle level technicians both in locally and internationally. To full fill that demand and to give solution for un employed youth this system provides a good solution. Based on the above facts it is needed to look for the existing constrains and opportunities which affects the effectiveness of this system.

Research Questions

- What are the existing constraints & opportunities in NVQ 5 & 6 programmes?
- Do the curriculums of NVQ 5 & 6 programmes meet the industrial need?
- Should NVQ 5 & 6 programmes reform?

Objectives

- To identify the curriculum of NVQ 5 & 6 programmes meet the industrial needs
- To identify the factors facilitating & obstructing the NVQ 5 & 6 students & lectures in the teaching learning process
- To identify the employability of Diploma holders
- To identify the possible reforms & improvement in NVQ 5 & 6 programmes

CHAPTER 02

LITRETURE REVIEW

2.1 HISTORY OF TECHNICAL EDUCATION

The main objective of this study was to ascertain the internal and external efficiency of NVQ 5/6 Diploma courses offered by Technical Colleges. The actual employment of graduates, the relevance and adequacy of the training for competencies required in work contexts, and the overall quality of graduates as per industry's requirements were the indicators identified, to ascertain the internal and external efficiency of the courses.

Up to now there are several researches which are carried out by DTET officers & officers by other Technical Vocational Institute under title of effectiveness of certificate courses conducted by technical colleges but not the diploma courses.

The first Institution for formal Technical education in Sri Lanka was established in the latter part of the year 1893. This Institution was known as the Government Technical School and was housed in a renovated coffee store situated at close proximity to the Ceylon Government Railway Terminal building at Maradana in Central Colombo. The Institution consisted, of a small workshop, laboratory, lecture room and a class room and the student enrollment of the first batch was only 25.

The Technical School later became the pioneering institution for science education in Sri Lanka. Prior to the establishment of the Ceylon Medical College, Chemistry, physics, Biology & Science, for medical students were conducted at Ceylon Technical college. Courses in Science for school teachers were also provided and they too became the pioneers of teaching Science in the general Education system.

In 1906 the name of the Technical school was changed to that of Ceylon Technical College. By this time the college had started supplying technically competent people and was providing skilled workers to government technical departments. Facilities to develop Technical Education in Civil, Electrical and Mechanical Engineering fields and also in Telegraphy, Surveying, Chemistry and Physics were provided. Eventually, the science section of the Ceylon Technical College became the nucleus of the Department of Science of the Ceylon University College started in 1921.

The Ceylon Technical College was re-organized in 1933 and started preparing candidates for the external degrees in Engineering of the University of London. Until the Faculty of Engineering of University of Ceylon commenced in 1950, the Technical College continued to hold regular classes for the external degree of the University of London. The facilities at the Faculty of Engineering Workshop of the Ceylon Technical College were fully made use of, by the Faculty of Engineering from 1952 to 1960 until the faculty moved to its new premises at Peradeniya.

In 1908, the Ceylon Technical College started classes for commerce students and progressed over the years to became the centre for management and Business Studies. Evening courses in Accounting at professional level were started in 1943 and degree level Full-Time Courses in Commerce was started in 1946. In 1951 a professional course in valuation was started. In addition, classes were also conducted to provide instructions for those taking up external examinations of the British professional institutes in the disciplines of Secretaryship, Transport & banking. Middle level courses in Accountancy, Marketing and Stenography were also provided.

In the year 1953 the Arts and Crafts section of the Ceylon Technical Colleges was transferred to a new department known as the Government College of Fine Arts. In 1960, the Full-time Technician courses were transferred to the newly established institute of Practical Technology at Katubedda. This institute was upgraded as Ceylon College of Technology in 1966, and it became the University of Moratuwa in the year 1972.

The first junior Technical School was established in Galle in 1957. This year was of significant importance for Technical Education because of the introduction of Sinhala medium courses. These courses were commenced with certificate courses in Shorthand, typewriting and Book keeping. By 1963 even the Diploma courses were being conducted in Sinhala medium.

Significant feature of the growth of Technical College system is that, 31 out of 32 Technical Institutes have established after the independence of Sri Lanka, in particular from 1956 to 1998.

2.2. CURRENT SITUATION OF TECHNICAL EDUCATION

At present there are 38 Technical Colleges scattered throughout Sri Lanka. These institutions are managed by Department of Technical Education & Training which functions under the Ministry of Skills Development, Vocational and Technical Education.

In order to facilitate smooth functioning of administrative and academic aspects of the system, the entire structure has been divided into Nine Colleges of Technology (CoT) in nine provinces. The colleges in each province have been brought under the supervision of a CoTdirector.

The total strength of teaching staff of the Technical colleges is around 810. The nonacademic staff of Technical Colleges consists of about 900 persons at present.

Members of the academic staff are continuously exposed to local & foreign training to update & upgrade their knowledge and skills in the relevant subject areas. UK, Sweden, Netherlands, Japan, Korea, Philippines and India are some of the countries where staff training has been provided. The UNDP, the British Council, ILO, and JICA, have been providing funds to most of the scholarships. The CPSC has provided short-term workshops/seminars and in country courses to technical college staff.

The physical facilities of Technical colleges were updated in the recent past under the Technical education Development Project funded by the Asian Development Bank with technical assistance from overseas agencies. Every effort is being made presently by the technical college

system to improve the standards of Technical education to take up the technological challenges of the 21st century.

Source: www.techedu.gov.lk

2.3. THE ENVIRONMENT OF SRI LANKA'S TVET SYSTEM

Sri Lanka's TVET system is characterized by a multitude of agencies including training providers of public and private sectors, standards and curriculum development agencies and a regulatory body, which is the Tertiary and Vocational Education Commission operating under the purview of the 'Ministry of Youth Affairs. National Apprentice and Industrial Training Authority (NAlTA) and the University for Vocational Technology (Univotec) previously had known as the National Institute of Technical Education of Sri Lanka (NITESL) function as competency standards and curriculum development agencies respectively. The Univotec was inaugurated in 2008 with the purpose of providing education at degree level for those who come through NVQ system as well as those who work in industry and wish to acquire degree level education; The NITESL was made a faculty of the Univotec as per the provision of the Univotec Act. The NAITA functions as the leading agency in providing apprenticeship training. It manages three (03) national training institutes viz. Apprenticeship Training Institute (ATI), Automobile Engineering Training Institute (AETI) and Institute of Engineering Technology (lET),

Department• of Technical Education and Training (DTET) operates 38 Technical Colleges throughout the country as at end: of 2009, of which nine (09) Colleges have been upgraded as Colleges of Technology (CoTs) to offer diploma level courses leading to National Vocational Qualifications. The Technical Education Development Project (TEDP) funded by the Asian Development Bank provides funding for this initiative. The Korean International Cooperation Agency (KOICA) also provides funds in this program.

In the year 2007, the Technical Education Development Project (TEDP), the successor to the Skills Development Project (SDP), came into effect that mainly concentrates on activities related to NVQ level 5 and above diploma level courses and setting up of the University for Vocational Technology (Univotec) for award of NVQ level 7 degree equivalent qualification.

The Vocational Training Authority (VTA) operates a network of Rural Vocational Training Centers (RVTCs), Special Vocational Training Centers (SVTCs), District Vocational Training Centers (DVTCs) and National Vocational Training Centers (NVTCs), throughout the country. As at end of 2009, there were 270 training centres managed by VTA. The National Youth Services Council (NYSC), under' the purview of the Ministry of Youth Affairs, organizes vocational training courses in urban as well as rural areas. In addition, a set of other public sector agencies provide training in different areas. Private sector establishments in the industry provide industry-specific TVET courses for their own workers as well as outsiders in different occupations. Registered private and NGO sector training institutions also play a key role in providing TVET in the country. As recorded at end of October 2009, there were 1,010 private NGO sector training providers in the Island.

All these developments demand different roles to be played by stakeholders of TVET.

Source: www.techedu.gov.lk

2.4. VISION OF DTET

To be the most trusted leader in providing Technical Education and Vocational competencies to the global market.

2.5. MISSION OF DTET

We will produce competent and productive manpower for better livelihood through quality and relevant occupational training to meet the challenges of changing global socio economic and technological needs.

2.6. KEY FUNCTIONS OF DTET

- Impart employable skills
- Planning, Monitoring and Evaluating of Activities carried out in 38 Technical Colleges
- Recruitment and development of human resources

Training needs analysis, development of curricula (Non-NVQ Courses) and instructional materials

General administration of the Technical Education System

Provision of finances and other resources for operation and maintenance

Linking-up with foreign institutions

Organizing of International Symposiums, Workshops, Seminars & exchange programs in TEVT sector

2.7. DIVERSIFIED ACTIVITIES OF THE DTET

Production and Services Units

Career Guidance & Counseling

Entrepreneurship Development

Environmental Education

Job Placement

Industrial Liaison Committees / Technical Committees

Curriculum/ Instructional Materials Development

Academic Audit/ Institutional Audit

College Based Planning & Development

Research and Tracer Studies

2.8. NATIONAL VOCATIONAL QUALIFICATION FRAMEWORK

The National Vocational Qualification Framework makes provision for a nationally consistent, technical and vocational education and training in Sri Lanka relevant to economic and social development and is of an international standard. The National Vocational Qualifications of Sri Lanka are based on national competency standards identified by the industry stakeholders. The competency standards include relevant technical and employability competencies. The system awards qualifications at seven levels as given in Table 1.

Table 01: Seven level of Qualifications

Level No.	Qualification	Generalized Description
Level 1	National Certificate	Level 1 recognizes the acquisitions of entry level competencies
Level 2 Level 3 Level 4	National Certificate	Levels 2, 3,and 4 recognize increasing levels of competencies. Level 4 qualification provides for full craftsmanship/ workmanship.
Level 5 Level 6	National Diploma	Levels 5 and 6 recognize the increasing levels of competencies of technicians including supervision and process management.
Level 7	Bachelors Degree	Level 7 recognizes the vocational/technological competencies at Bachelors Degree level

National Vocational Qualifications are focused for different categories at each level as follows:

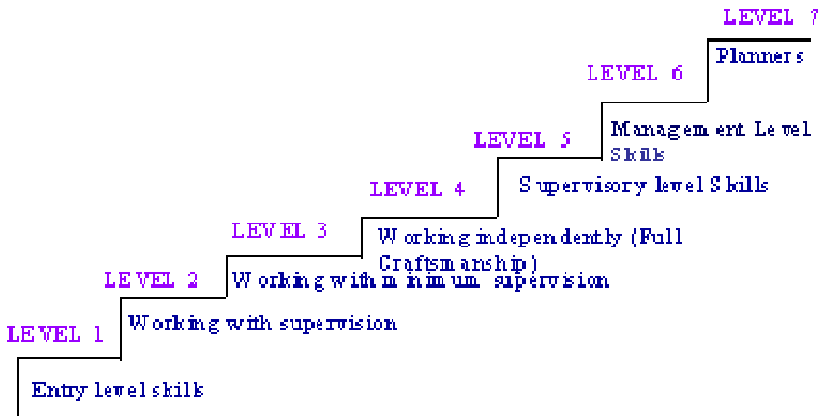


Figure 01: Seven levels of NVQ Framework

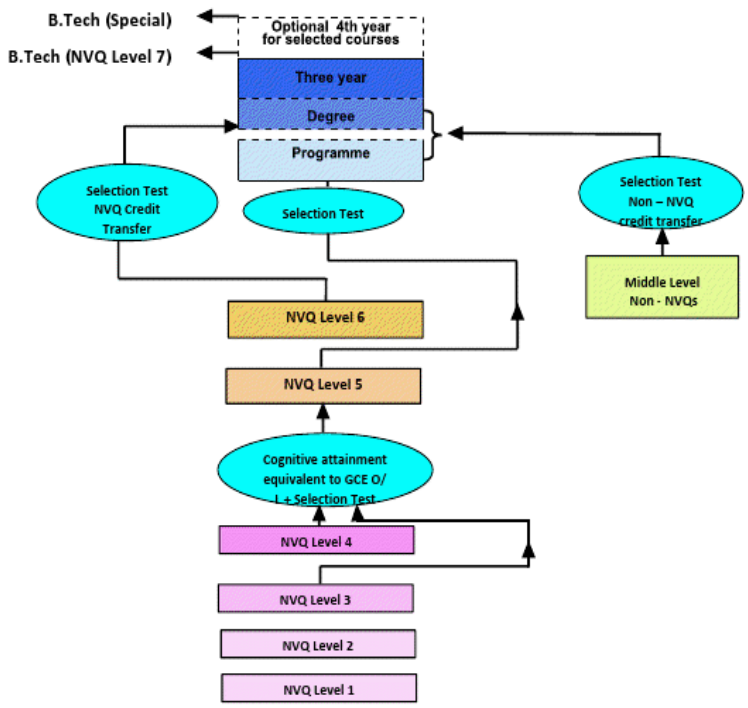


Figure 02: NVQ Framework of SriLanka

Source: National Vocational Qualifications Framework of Sri Lanka Operations Manual

2.9. NVQ LEVELS 5 AND 6 PROGRAMMES

NVQ level 5 and 6 diploma programs allow a student to leave the system at the end of Level 5 with a National Diploma of NVQ level 5 or proceed and leave the system at the end of Level 6 with a National Diploma of NVQ level 6. However some diploma programmes may not have an exit at NVQ level 5. This is possible where the industry has identified that there is no employment category for a person with competencies achieved up to level 5 only in that technology area.

2.9.1. NVQ 5 Diploma programs conducting in colleges of technology

- Telecommunication Technology
- Construction Technology

- Automobile Technology
- Refrigeration & Air Conditioning Technology
- Farm Machinery
- Bio Medical Equipment Technology
- Information & Communication Technology
- Welding Technology
- Food Technology
- Jewellery Design & manufacturing Technology
- Production Technology
- Mechatronic Technology

The programmes are developed so that persons with NVQ level 5 or 6 qualifications will have supervisory and/or process management competencies. These involve an increased percentage of knowledge component compared to competencies at lower levels. It is therefore necessary to ensure those entering NVQ level 5 programmes already have the necessary hands on skills to embark on a level 5 programme. The entry qualification to the Level 5 Diploma program is therefore fixed at NVQ Level 3 or Level 4 in a relevant occupation. The list of relevant occupations for each level 5 diploma will be notified when applications are called for these programmes.

Table 02: Occupational Areas &Relevant NVQ5 & NVQ6 Technology Areas

Occupation	**Technology Specialization**
Automobile Tinker	Automobile Technology
Motorcycle Mechanic	
Automobile Electrician	
Automobile Mechanic	
Three Wheeler Mechanic	
Bio Medical Technician	Bio Medical Engineering
Household Electrical Equipment Repairer	
Radio, TV, & Allied Equipment Repairer	
Mason	Construction Technology
Plumber	
Carpenter Buildings	
Bar Bender	
Industrial Plumber	
Painter Building	
Mason	
Radio, TV, & Allied Equipment Repairer	

Automobile Electrician	Telecommunication Technology
Household Electrical Equipment Repairer	
Tea Factory Mechanic	Farm Machinery Technology
Automobile Mechanic	
Three Wheeler Mechanic	
Motorcycle Mechanic	
Automobile Tinker	
Rubber Processing Machine Operator	
Baker	Food Technology
Fruit & Vegetable Processor	
Cook	
Computer Application Assistant	Information & Communication Technology
Computer Hardware Technician	
Computer Network Technician	
Computer Graphic Designer	
Radio, TV, & Allied Equipment Repairer	Mechatronics Engineering
Computer Hardware Technician	
Electrician	
Pneumatic Technician	
Tool & Die Marker	
Machinist	
Tea Factory Machinist	
Aluminum Fabricator	Production Technology
Machinist	
Tool & Die Maker	
Welder	
Fabricator Metal	
Boiler Operator	
Work study officer	
Plastic Processing Machine Operator	
Refrigeration & Air-conditioning Mechanic	Refrigeration & Air Conditioning
Automobile Air-conditioning Mechanic	
Welder	Welding Technology
Fabricator Metal	

There is also a path of lateral entry for students with non NVQ qualifications mapped by the TVEC and assessed for their practical experience as well as for those who have work experience in an appropriate field and assessed to have Recognized Prior Learning (RPL) equivalent to NVQ level 3 or 4.

Candidates selected for entry to a NVQ level 5 programme may possess different skill and knowledge backgrounds. Even those coming through the NVQ system itself will have qualifications from different occupations. In order to ensure that all those selected to undergo a level 5 programme have the minimum skills and knowledge needed at entry, they will initially go through a Bridging program. This is carried out for the selected candidates after a selection test and an academic counseling session. The bridging program provides the necessary knowledge and competence to the students selected to Level 5. If there is a skill gap in a particular student that will be identified at the academic counseling session and the student is directed for necessary "Gap-Filling" programs. The "Foundation Studies" program is intended to provide the necessary mathematics, science and English knowledge and computer literacy needed to embark on a level 5 programme. Some students may get full or part exemptionfrom Gap-filling. However, it is recommended that all students follow the Foundation Studies program. There are four subjects under Foundation Studies with each subject having several Modules:-

- Communication Skills in English
- Mathematics for Technology
- Science for Technology
- Computer Literacy

NVQ level 5 and 6 competency standards comprise of units of competency and each unit of competency is assigned a credit value. A trainee will be eligible to receive the NVQ level 5 qualifications once he/she earns the required number of credits specified in the relevant competency standard. A level 5 qualification allows direct entry to the NVQ level 6 training programme in the same technology area with the credits earned towards the NVQ level 5 qualifications counted towards the NVQ level 6 qualifications.

2.10. INDUSTRIAL TRAINING

All students undergo an industrial training module in the relevant technology area in addition to the specified credit requirement for the awards of qualifications. The industrial training is normally scheduled at the end of the second semester, outside the 20 weeks allocated for regular teaching modules. The duration can vary depending upon the technology area.

2.11. OVERVIEW OF THE ASSESSMENT SYSTEM

A trainee will be eligible to receive the NVQ level 5 or 6 qualification once he/she face formative & summative assessment successfully & also Competency based assessment.

2.11.1. CURRICULA BASED CONTINUOUS AND SUMMATIVE ASSESSMENTS FOR NVQ LEVEL 5 AND LEVEL 6 DIPLOMA PROGRAMMES

Continuous and summative assessments are to be based on the modules of the curricula and assess the achievement of learning outcomes and the knowledge. Assessment resources for continuous and summative assessments will be developed by the staff of the institution. In the case of CoTs, DTET will centrally manage.

Mode of assessment for each learning outcome should be in accordance with the assessment evidence matrix developed for the module. Staff of the institution is responsible for the development of the module assessment evidence matrix which indicates the modes of assessment most suitable for assessing each learning outcome.

Training institution is responsible for the conduct of continuous and summative assessments. The records of all assessments should be kept by the institution for future references.

Assessment resources for the summative assessments developed by the staff of the institution should be moderated by external moderators appointed by the training provider with the approval of TVEC.

A minimum mark of 50% must be attained in the continuous assessments for a trainee to be eligible to face the summative assessment. Any trainee who does not satisfy this requirement should obtain the minimum mark of 50% in a subsequent assessment before appearing for the summative assessment.

A minimum mark of 50% must be attained in the summative assessments for a trainee to be qualified to face the competency based assessment for the award of the qualification. However the TVEC may impose higher qualifying marks on the recommendation of NITAC for summative assessment of areas that it considers necessary. Any trainee who does not satisfy this requirement should obtain qualifying marks, 50% or higher as recommended, in a subsequent assessment before appearing for the competency based assessment.

2.11.2. COMPETENCY BASED ASSESSMENTSFOR NVQ LEVEL 5 AND LEVEL 6 DIPLOMA PROGRAMMES

In a competency based system, skills, knowledge and attitudes are assessed by using national competency standards as a benchmark for assessment. Formal testing and examinations are also ways of assessment. A competency based assessment system uses multiple sources of evidence upon which judgment is based whether candidate is competent or not. An assessment decision is based upon a combination of formative and summative assessments. Criterion-referenced assessment measures the performance of an individual against a set of standards. Competency-based assessment is criterion-based. Candidates are measured against standard criteria or benchmarks, such as National Competency Standards or learning outcomes. The purpose of the assessment is to determine whether or not a candidate can apply skills, knowledge and attitudes

identified in national competency standards to the level of performance that is specified in the standards.

Assessor/s must collect sufficient evidence of competence from candidates in order to be able to reach an assessment decision.

2.12.FACTORS INFLUENCE THE EFFECTIVENESS OF COURSE

Training programmes in organizations provide a variety of benefits. For example,organizations gain through the improved performance and increased productivitythat accompany employee development, while employees enjoy extrinsic and intrinsicrewards associated with skill development and performance improvement (Elangovanet.al., 1999). Effectiveness is measured by how many training participants successfullyapply their learning on the job (penetration); how long training participants continueto apply the learning on the job (sustainability); and how quickly the organization willrealize the benefits for the entire target audience (speed).

In order to enhance job performance, the skills and the behaviours learned andpracticed during training have to be transferred to the workplace, maintained overtime and generalized across contexts (Holton & Baldwin, 2003). Being able toprove the effectiveness of training is important, not only in justifying the expenses oftraining but also the original reason for carrying it out. Some organizations still paylip service to training in its many manifestations. Even those which are committed totraining will consider that evaluation of training is difficult and time consuming anddifficult to carry out (Bedingham, 1997).

Larson (1997) believes that measuring and ensuring the effectiveness of training isone of the most difficult HRM issues. With the increasing focus on and allocation ofresources to various forms of training, the need for documenting the return oninvestment in training costs has accelerated. He argues that effective training is usuallybelieved to require a thorough analysis of training needs. He goes on to argue that inany organization there are a number of factors which make such an analysis difficult.

In addition to pragmatic barriers like lack of time, resources and committement,"needs diagnosis" suffers from the sheer complexity of the operation.With the cost of training rising rapidly and a high level of employee skill and productivityessential to maintain profitability and business's competitive position, questions abouttraining effectiveness are no longer focused exclusively on the perceptions of traineesbut are directed at factors such as "Did employee performance improve as a resultof training?" and "How did training contribute to achieving critical organization goals?"(Sadler-Smith et.al., 1999; Phillips, 1998). Organizations are realizing both theimportance of training in improving performance and productivity and significantinvestments of time and money that are being devoted to employee training. Anorganization's decision makers and professionals want to be sure that training isaccomplishing the intended purpose while using resources as efficiently as possible(Pershing and Pershing, 2001).Training effectiveness literature describes many factors that influence the effectivenessof training provided to employees. These factors are categorized as

- individual factors(locus of control, self-efficacy)
- motivational factors (career and job attitudes,organizational commitment, decision/reaction to training, post training interventions)and
- Organizational or environmental factors such as supervisor and peer support,continuous learning culture and task constraints.

The primary goal of any training programme is to impart to employees a new set ofKSAs (knowledge, skills and abilities), behavior or attitudes. Training effectivenessrefers to the extent to which the training objectives are achieved (Tai, 2003). Ingeneral, training effectiveness is evaluated by measuring a number of training andtransfer outcomes. Kirkpatrick (1976) suggested that reactions, learning, behavior,and results are four measures that are relevant for the evaluation of training outcomes

(Tai, 2003).In Kirkpatrick's model, reactions refer to the extent to which traineeslike and how they feel about training. Learning refers to the knowledge and skillsacquired by trainees. Behavior refers to the knowledge and skills transferred to thework situation by trainees. Results refer to the attainment of organizational objectives.

2.12.1. SELF-EFFICACY

Self-efficacy is one of the individual factors that influence the effectiveness of training.Self-efficacy is defined as people's judgment of their capabilities to organize andexecute courses of action required to attain designated types of performance. It isconcerned not with skills one has but with judgments of what one can do withwhatever skills one possesses (Bandura, 1986). Self-efficacy has been shown topredict performance in computer software training (Gist, Schwoerer, & Rosen,1989), interpersonal skills training (Gist, Stevens, &Bavetta, 1991), and militarytrainingprogrammes (Eden &Ravid, 1982; Tannenbaum et. al., 1991).

Furthermore,self-efficacy levels at the conclusion of training have exhibited significant correlationswith post training transfer and job performance measures (Mathieu et al., 1993). Interms of trainee variables, Gist et al. 1991 found that initial self-efficacy ininterpersonal skills training was significantly related to initial performance levels, aswell as to skill maintenance over a seven week period.

2.12.2. CONTINUOUS LEARNING CULTURE

A continuous learning culture is an environmental factor that has an impact on theeffectiveness of training. A continuous learning culture is defined as an organizationwideconcern, value or belief, and expectations that general knowledge acquisitionand application is important (Tracy et al. 1995). Such shared meanings involveindividual, task and organizational characteristics. In consequence, employees workingin a continuous learning environment share the perceptions and expectancies thatlearning is essential to them and associated with their work. According to the empiricalstudy, a continuous learning culture was directly related to post-training behaviours(Cheng and Ho, 1998).The more employees perceive that the organization

supportscontinuous learning, the more the value is salient to them, thus raising their motivationto participate in development activities such as learning (London and Mone, 1999).

2.12.3. SUPERVISOR-SUPPORT

Supervisor-support is one of the key organizational factors that influence trainingeffectiveness. Supervisory support is clearly a multidimensional construct, whichcould include encouragement to attend, goal setting activities, reinforcement activities,and modeling of behaviours (Baumgartel et al., 1984; Eddy et al., 1967; Huczynski& Lewis, 1980; Maddox, 1987). Employees look to their supervisor for importantinformation regarding how to work successfully within the social environment of theorganization. As Huczynski& Lewis (1980) state, employees who perceive that atrainingprogramme is important to the supervisor will be more motivated to attend,learn and transfer trained skills to the job. Facteau et al., (1995) have observedthat the immediate supervisor plays a significant role in their subordinates' trainingmotivation. Managerial support (for example, encouraging trainees to use new skillsand tolerating mistakes when they are practising) has been identified as a keyenvironmental variable affecting transfer (Ford et al., 1992;Huczynski and Lewis,1980) and is likely to be of central importance in creating a "transfer friendly" climate.

However, where managers are highly supportive, individuals are likely to feel morecomfortable performing trained skills (Ford et al., 1992). It is highly likely thatimmediate supervisors cue the implications of training participation to employeesthrough performance evaluations at the end of the year, and through discussionsduring the performance period (Chiaburu and Tekleab, 2005).Training motivation can be described as a specific desire on the part of the trainee tolearn the content of the training programme (Noe and Schmitt, 1986).Measures ofmotivation to learn include items assessing trainees' enthusiasm for learning andpersistence when programme material is difficult (Hucks, 1984).

2.12.4. MOTIVATION

Motivationis acharacteristic of an individual willing to expend efforts toward a particular set ofbehaviour. In a training context, motivation can influence the willingness of an employeeto attend the training programme (Maurer and Tarulli ,1994;Noe and Wilk, 1993),to exert energy towards the programme (Ryman and Biersner ,1975) , and to transferwhat they learn in the prgramme on to the job (Baldwin and Ford ,1988).

Source:(Sri Lankan Journal of Management, Vol. 12, Nos. 3 & 4: Vol. 13, Nos. 1 & 2)

2.13. STUDENT INVOLVEMENT OF NVQ5/6 PROGRAMMES

Number of student applied, and participated figures revealed that an increasement in 2009, 2010 but not such increment shows in 2011.

Table 03 :Summary of student Admissions by course 2009, 2010 & 2011

Course	No. Applied			No. Registered		
	2009	2010	2011	2009	2010	2011
Food Technology(NVQ5)	22	36	-	10	13	18
Farm Machinery(NVQ5)	-	37	-	-	16	16
Automotive Technology(NVQ5)	43	65	11	21	36	30
Construction Technology(NVQ5)	27	61	75	11	53	61
Tele Communication Technology(NVQ5)	-	102	14	-	14	14
Information Communication Technology(NVQ5)	84	390	128	79	162	127
Mechatronics Technology(NVQ5)	-	93	37	-	38	37
Production Technology(NVQ5)	-	14	-	-	14	7
Welding Technology(NVQ5)	-	39	19	-	20	19
Refrigeration & Air Conditioning(NVQ5)	-	33	-	-	24	72

2.14. SUMMARY OF STUDENT PERFORMANCE

52% of Students have passed the written exam to obtain eligibility for the final assessment in 2010 & it was declined in year 2011 as 29%.

Table 04: Summary of student performance (Examination results) by course in 1st sitting

NVQ Level 5& 6 Courses conducted by Colleges of Technology-2010 July

Course Name	Course Code	No. Sat	No. Qualified	No. not Qualified	% Qualified
Higher Diploma In Information & Communication Technology	ETA11	33	20	13	60.61
Diploma in Telecommunication Technology	ETB 01	13	11	2	84.62
Diploma in Mechatronics Technology	ETB 04	40	6	34	15.00
Diploma in Construction Technology	ETB 06	43	19	24	44.19
Diploma in Automobile Technology	ETB 07	40	23	17	57.50
Diploma in Refrigeration & Air Conditioning Technology	ETB 08	17	12	5	70.59
Diploma in Farm Machinery Technology	ETB 09	13	8	5	61.54
Diploma in Information & Communication Technology	ETB 11	106	58	48	54.72
Diploma in Welding Technology	ETB 12	9	3	6	33.33
Diploma in Food Technology	ETB14	8	8	0	100.00
Diploma in Production Technology	ETB 16	11	7	4	63.64
Total		333	175		

Source: Statistical Hand book, DTET, 2011

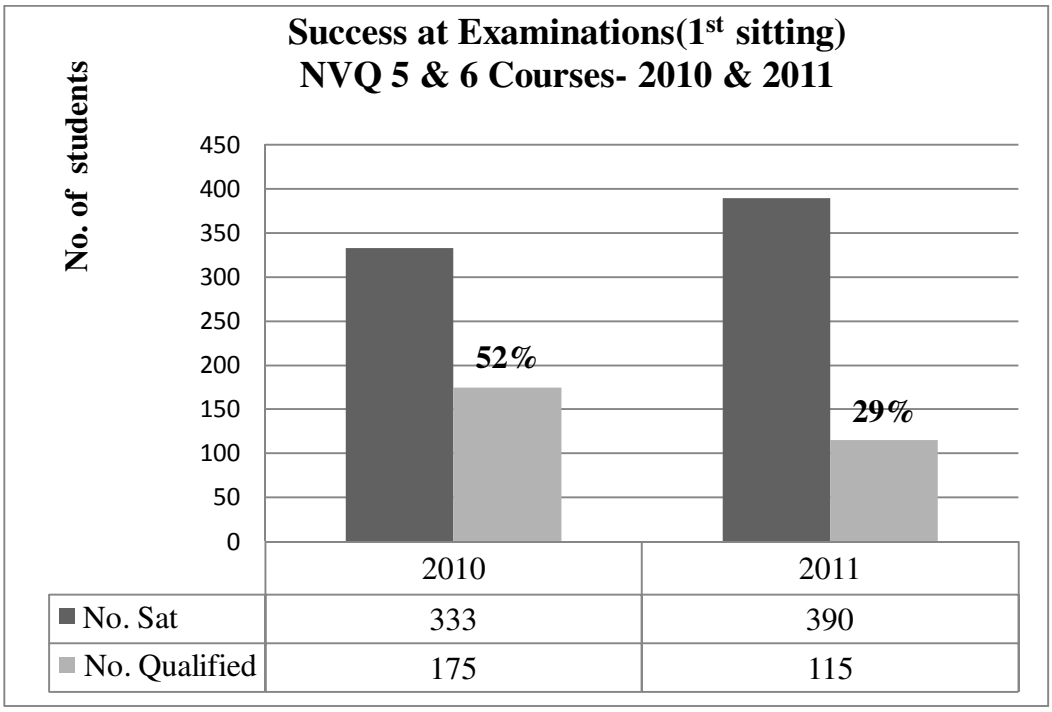


Figure 03: Success at examinations (1st sitting) NVQ 5 & 6 Courses- 2010 & 2011

Source: Statistical Hand book on Technical Education, 2011, Audit query, Auditor General's Department 2011

2.15. Labour Market Trends

Demand for labour is the number of employment opportunities available in the public & private sector institutions in and outside of the country. Technical & vocational Education & Training play major role to full fill that demand and to give solution for unemployed youth.

Srilanka is facing increasing supply and demand gap in the labour market over the years. This situation further worsens due to skill mismatch, where some of the TVET graduates do not fit into needs of the labour market. The National Vocational Qualification Framework of Sri Lanka (NVQSL) which complies with the national quality requirements has been established to support the efforts of fulfilling above demand. Eleven (11) new technician programs curricula (NVQ 5& 6) which give supervisory and/or process management competencies were developed according to TVEC approved standards & the NVQ frame work.

Table 05: Vocation Training and Unemployment in 2011

Unemployed Persons	Male		Female		Total	
	No	%	No	%	No	%
with Vocational Training	36,888	25.1	59,250	30.4	96,138	28.1
with out Vocational Training	109,982	74.9	135,684	69.6	245,666	71.9
Total	146,870	100.0	194,934	100.0	341,804	100.0

Source: Quarterly Labour Force Survey, Department of Census & Statistics * Excluding Northern province

Table 06: Currently employed persons by occupational group(Based on ISCO 88)(thousands)

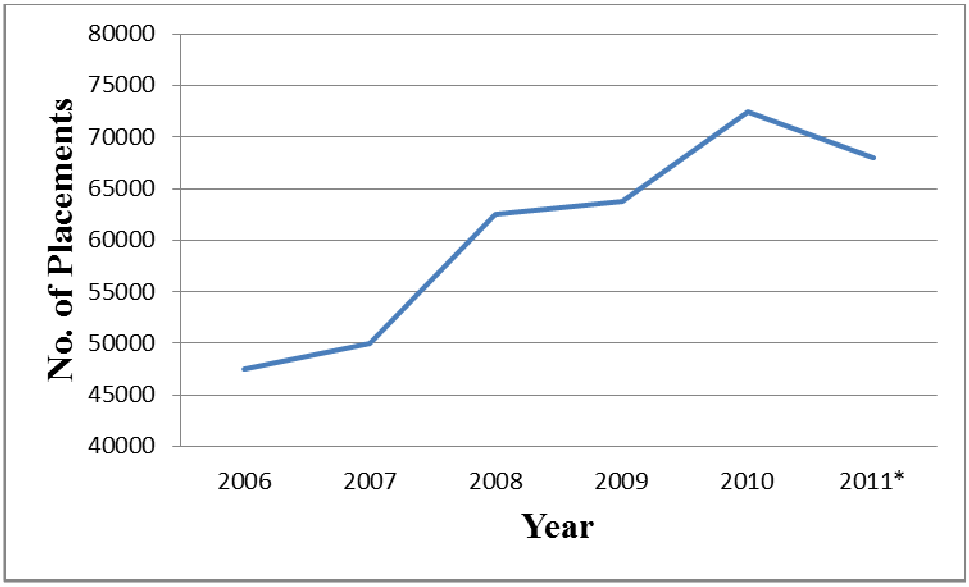
Occu. Group No	Occupational Group	2004***	2005#	2006*	2007*	2008*	2009*	2010*	2011*
1	Senior Official & Managers	100	121	129	123	121	117	116	134
2	Professionals	404	471	376	367	416	422	396	438
3	Technicians& Associate Professionals	366	404	362	382	398	372	376	366
4	Clerks	323	300	277	284	299	305	304	321
5	Proprietors & Managers of Enterprises	420	516	526	495	477	471	478	521
6	Sales & Service Workers	671	574	513	508	546	551	578	621
7	Skilled Agriculture & Fishery Workers	1514	1562	1590	1504	1604	1607	1611	1703
8	Craft & Related workers	1125	1216	1214	1202	1165	1106	1132	1184
9	Plant & Machine operators & Assembles	461	532	502	564	527	500	537	543
10	Elementary occupations	1951	1760	1577	1574	1576	1620	1642	1541
11	Unidentified	59	62	39	40	44	68	66	58
	Total	7394	7518	7105	7043	7173	7139	7236	7430

Source: Quarterly Labour Force Survey, Department of Census & Statistics

* Excluding Northern& Eastern provinces

** Including Eastern Province but Excluding Northen Province

*** Mullativu&Kilinochchi districts were excluded due to some problems observed in the sampling frame# All the districts are included



* Excluding Northern & Eastern provinces

Figure 04 : Trends in Foreign Employment placement for skilled jobs.

Source: Labour Market Bulletin, 2011

Table 07: No. of Job Advertisements by Gender

Time period	Classification		
	Male	**Female**	**Not Specified**
1st half 2009	18,458	5914	14,004
2nd half 2009	20,919	6716	16,156
1st half 2010	29,005	7817	18,280
2nd half 2010	36,859	8831	23,949
1st half 2011	44,980	10365	28,597
2nd half 2011	50,739	11,234	31,291

Source: Labour Market Information Bulletin, December 2011

CHAPTER 03

RESEARCH METHODOLOGY

3.1. POPULATION & SAMPLE OF THE STUDY

3.1.1. Passed out students of NVQ 5/6 Diploma programmes

Population: Passed out students of NVQ 5/6 Diploma programmes in nine CoTs in year 2010 & 2011

Sample: A sample size of 96 of Passed out students in year 2010 & 2011 were drawn from those who have completed NVQ 5/6 Summative assessment representing the five CoTs. Here, 4 courses were taken for the study out of which two courses in highest pass rate(NVQ 5 food technology & ICT)- & two courses in lowest pass rate (NVQ 5 Auto mobile & construction technology. 24 samples were selected from each course to make a total of 96 samples.

3.1.2. Students following the NVQ 5/6 Diploma Programmes.

Population: Trainees of NVQ 5/6 Diploma Programmes in Nine CoTs.

Sample: A sample of 120 students was drawn from those who are following NVQ 5/6 Diploma Programmes at present in same technology area mentioned above from five CoTs.

3.1.3. Head of the Institutes

Population: Directors of the nine Colleges of Technology.

Sample: 5 directors have drawn from CoTs.

3.1.4. Industry Representatives

Population: 80 industries which provide industrial training for NVQ 5/6 Diploma Programmes.

Sample: 12 companies were drawn to representing the same technological areas.

3.1.5. Lecturers (Technology Specific)

Population: lectures teach in NVQ 5/6 Diploma Programmes in nine CoTs.

Sample: 24 Lecturers were drawn from four technological areas.

3.2. DATA COLLECTION

3.2.1. PRIMARY DATA COLLECTION

The method of data collection was based on a questionnaire. Four questionnaires were developed intend for gathering primary data from

- Passed out students of NVQ 5/6 Diploma programmes
- Students following the NVQ 5/6 Diploma Programmes
- Head of the institutes
- Industry representatives
- Lecturers (Technology specific)

The questionnaire is comprised of structured questions as well as open ended questions. The pilot data collection was conducted with each questionnaire for purpose of validation. Based on the experience of the pilot survey, the questionnaire was further modified and presented to the TVEC for approval. The questionnaire has been sent and collected by post.

3.2.2. SECONDARY DATA COLLECTION

A secondary data was collected from the following sources.

1. Statistical Hand book on Technical Education, 2011
2. Annual Report of Department of Census and Statistics, 2011
3. National Vocational Qualifications Framework of Sri Lanka Operations Manual
4. Web site- www.tecedu@.gov.lk
5. Labour Market information Bulletin, Vol. 02 /'11-December 2011

CHAPTER 04

DATA ANALYSIS

The data collected by questionnaires and were analyzed using SAS statistical software for graphical and statistical interpretation. Whenever appropriate frequencies and percentage values were calculated and suitable data tables were prepared. The data presented in the graphical form using mostly the charts and graphs.

4.1 GENERAL INFORMATION

Table 08: Respondents by category

Questionnaire type	Number Posted	Number Received	Percentage (%)
Current students	118	80	67.80
Passed out students	96	75	78.12
Head of Institutes	05	05	100.00
Industry Representatives	12	08	66.663
Lectures	24	14	58.33

According to the responds it is clear that each category has given more than 50% of the responses.

Table 09: Gender distribution among trainees

Gender	Passed out Students	Percentage (%)	Current Students	Percentage (%)
Male	39	53	59	74
Female	35	47	21	26

According to the data, Male participants dominate the trainee population. It is revealed that male students were interested of following these courses. Labour Market information bulletin, 2011 mentioned that more job opportunities are being provided for males in the labour market from 2009 to 2011.

4.2.Mode of Awareness

Table10:How students get to know about course

Awareness Method	**No. of Respondents**
Through Media	20
Through Carrier Guidance	22
Through a Friend	27
Passed Students	7
Other Mode	16

Awareness of a course is very importance factor for effectiveness of a course. Among five awareness methods there was no significant difference. Data showed that information about courses conveyed by friends are more effective than other methods.

Table11: Intention in following the NVQ 5/6 Diploma courses

objectives	No. of Respondents (%)
Obtain ND/HND	27
Obtain B. Tech.	**32**
obtain local job	**32**
self-employment	3
Foreign Job	7

Above Table showed that high percentage aiming for local job and to obtain Vocational degree. Very few Reponses were given for the self-employment though students are given sufficient skill & knowledge.

4.3. Social recognition for NVQ5/6 Diploma Programmes

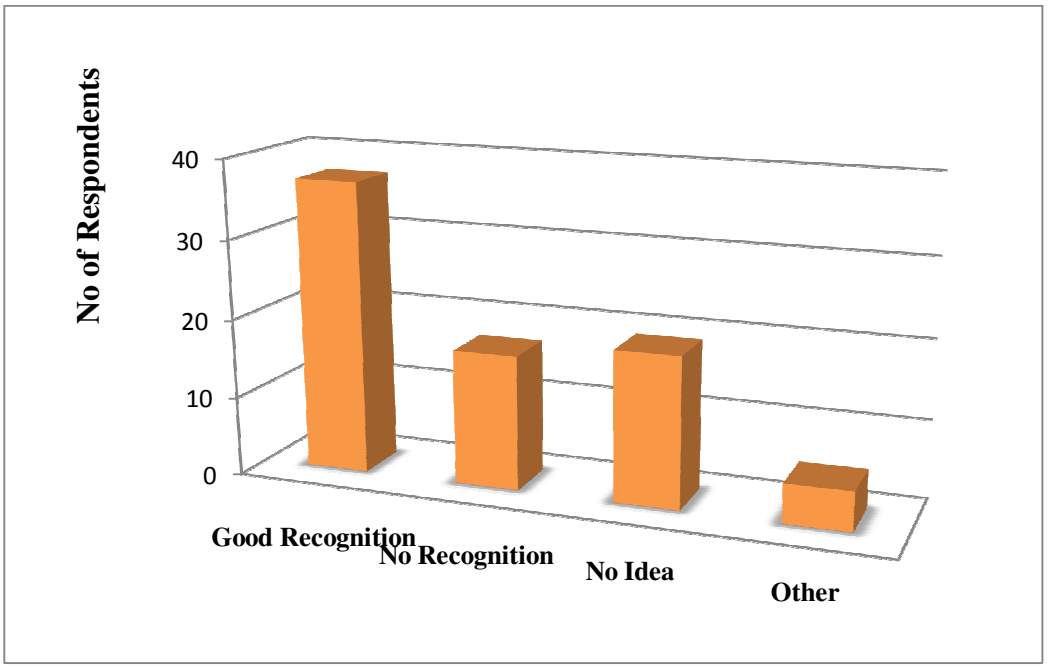


Figure 05: Recognition in society with regard to NVQ5/6 Diploma

With respect to the above figure 47% of the respondents were mentioned that there is a social recognition for NVQ5/6 Diploma Programmes and while22% have mentioned that there is no social recognition for NVQ5/6 Diploma. Due to lack of awareness programmes considerable percentage has stated there is no idea about the NVQ5/6 Diploma Programmes.

4.4. Student Demand for NVQ5/6 Diploma Programmes

Table 12: Summary of student admission, Registration & completion in 2010 & 2011

Course	CoT	Intake Capa.	Year						
			2010			2011			
			Applied	Attend	No.of Sat	Applied	Attend	No.of Sat	No.of NVQ certificate holders
ICT(NVQ 5)	Badulla	40	100	51	42	120	28	17	27
ICT(NVQ 5)	Rathnapura	40	60	42	31	52	42	42	25
Automotive Tec. (NVQ 5)	Kurunegala	20	35	24	21	32	23	15	07
Automotive Tec. (NVQ 5)	Kandy	20		20	19	50	29	16	25
Construction Tec.(NVQ 5)	Kurunegala	20	50	29	17	47	28	24	06
Construction Tec.(NVQ 5)	Anuradapu.	20	46	21	15	60	21	13	04
Food Technology(NVQ5)	Kandy	20		13	11	36	24	17	14
Total		180	291	200	156	447	195	144	108
Percentage					78%			73%	36%

Five CoTs were taken for the study. The above table showed No. of students applied, registered and has completed the course representing each course during 2010 and 2011.

Based on the data it shows unlike 2010 No. of students sat for the summative assessment has declined in 2011. Out of registered students 78% was sat for the summative assessment in 2010, while 73% was in 2011.In some courses student's attendance capacity is comparatively low than required level.

4.6. Teaching Learning Process

Teaching learning process is one of key factor which decides the effectiveness of the course.

4.6.1. Academic Staff Qualifications

4.6.1.1. Educational Qualifications

Table 13: Educational Qualifications of Academic staff

Qualification	No. of lectures	Percentage
M.Sc./M.A	4	28.6
Degree(B.Sc./B.A)	12	85.7
NDT	2	14.3

To conduct Diploma Programmes new staff were recruited with good commanding in the technological areas. 85.7% of lectures have basic degree qualification and 28.6% have master degrees. Few of them have NDT Qualifications. None of certificate holders are teach for NVQ5/6 Diploma Programes.

4.6.1.2. Professional Qualification of Academic Staff

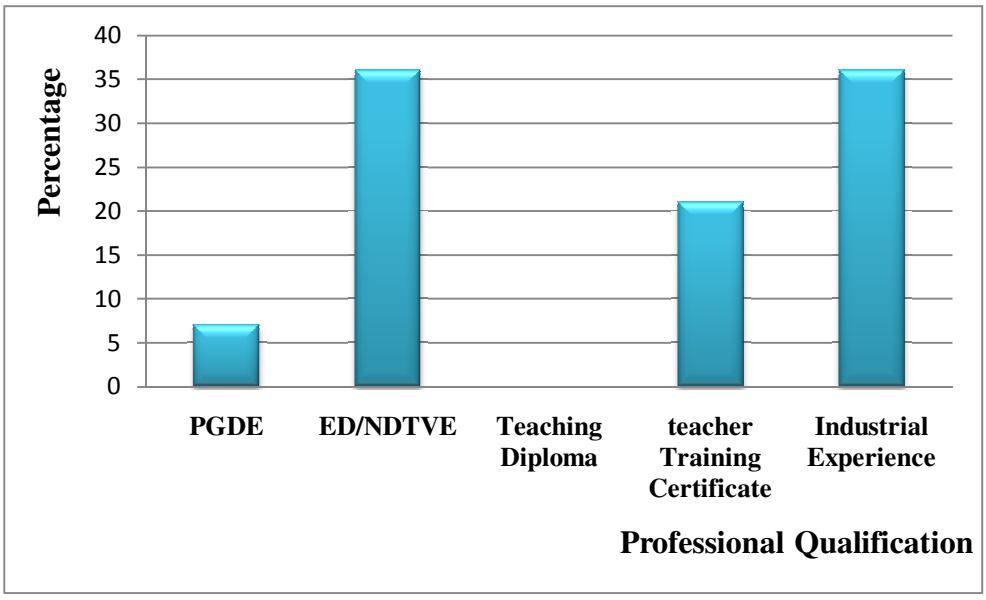


Figure 06: Professional Qualification of Academic Staff

According to the results shown in figure 06, 35% of lectures have Educational diploma or National Diploma in Technical Vocational Education as their professional qualification. All the members of staff of NVQ5/6 Diploma programmes were improved their industrial experience by the industry based skill upgrading training programme in locally & internationally. Results showed that the academic staffs of NVQ5/6 Diploma programmes are the fully qualified in their profession.

4.6.2. Teaching Experience

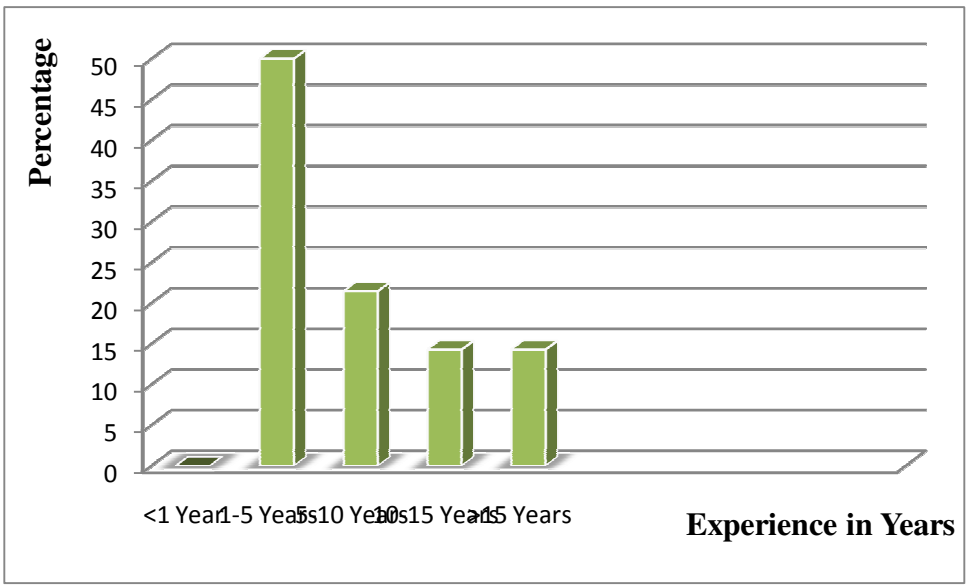


Figure 07 : Teaching experience in Academic Staff

When considering the members of staff in Diploma Programmes, majority is newly recruited& has less teaching experiences. Not only them but also well experienced staff members are also involve in teaching in these courses. Qualified staff will help to enhance the effectiveness of a course.

4.6.3. Teaching Method

Teaching method is the ways in which teachers share information with students. How that information is shared in a class room is dependent on the teaching methods.There are two method of teaching; students centered & teacher centered which are mentioned under educational psychology. Student centered method is more effective in technical & vocational education system.

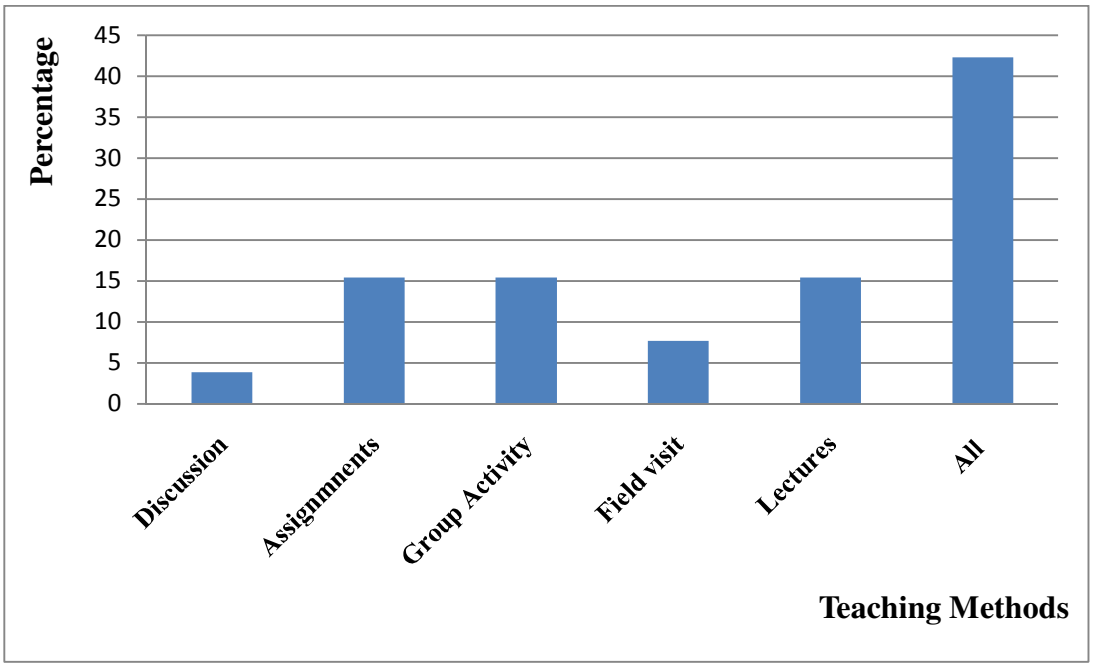


Figure 08: Teaching methods

According to the above figure about 42% of lecturers are used all the methods of teaching mentioned above. Therefore the teaching learning process is more effective.

4.6.4. Student's attendance

Table 14: View about Student's Attendance

View about Attendance	Percentage
Good	78
Bad	22

Above table revealed that the students' Attendance is in a good manner and it was 78% but 22% of students show bad attendance for lectures. It is compulsory to maintain their attendance at 80% for the eligibility of summative assessment and also students who attendedlecturers regularly showed best results rather than others.

4.6.5. Inspection of teaching learning process

Teaching Evaluation will help to improve the teaching ability of a teacher. This can be done internally by an experienced person or can be done by an external party.

Table 15: Inspection of teaching learning process

View about Inspection	No. of responses	Percentage
Yes	10	71.4
No	4	28.6

As shown in table 14, 71.4% respond that their teaching learning process is mostly inspected by internally. While 28.6% mentioned their teaching learning process is not inspected.

4.6.1. In Service Training for Academic Staff

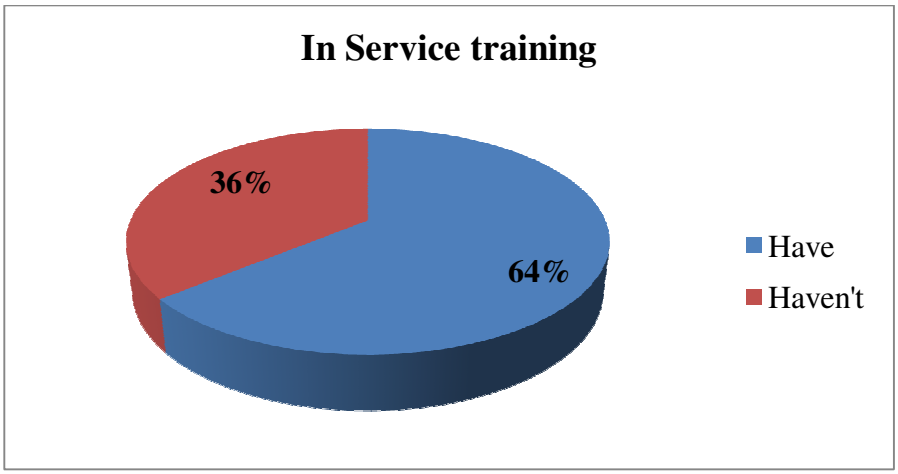


Figure 09: View about in service Training

Based on the results 36% were not given the in service training. Out of staff members who were participated for the in-service training 66.7% stated that the training was not that much relevance to the subjects they are teach. Only 11.1% were stated that the in service training was more relevant while 22.2 % were stated it was relevant.

4.7. Available resources

4.7.1. Availability of Syllabus, skill standards & Teacher guide

Table 16: Availability of Syllabus, skill standards & Teacher guide

Availability of Teaching Materials	Percentage	
	Yes	No
Presence of Syllabus & skill standard	100.0	0.0
Presenceof Teacher Guide/Trainer Guide	0.0	100.0

Data shown in above table mentioned that availability of syllabus & skill standards is 100%, while there are not teacher guide or trainer guide published up to date.In the teaching learning process teacher guide provide good direction to teach. But in NVQ5/6 programmes, there is no such teacher guides. In teacher guide under each topic objectives of the lesson, subject matters to be covered to achieve objectives, assessment procedure is clearly mentioned. At present most of the academic members do their teaching with considering syllabus and the past exam papers.

4.7.2. Available resources for teaching learning process

A chi-square test was performed to evaluate whether there is a relationship between the required teaching aids with different NVQ5/6 Diploma programmes&required resources &lecturer's response.

Finding revealed that there is a significant relationship between two parameters. "p" value for the testsare below 0.02& 0.00 respectively .

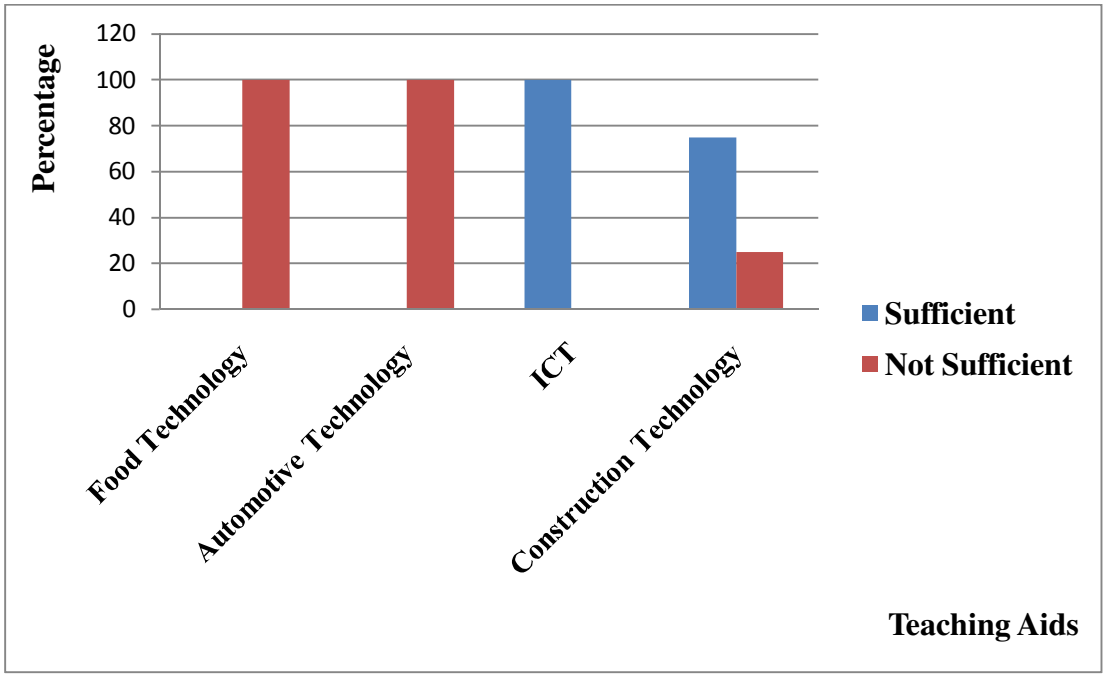


Figure 10: Relationship of required teaching aids with different NVQ5/6 Diploma Programmes.

ICT academic staff mentioned that they have sufficient teaching aids for teaching learning process, while 100% responses of Food Technology & Automotive Technology staff showed that they do not have sufficient no. of teaching aids for the teaching process. One fourth of the academic staff of construction technology mentioned, that there is no enough teaching aids for teaching process.

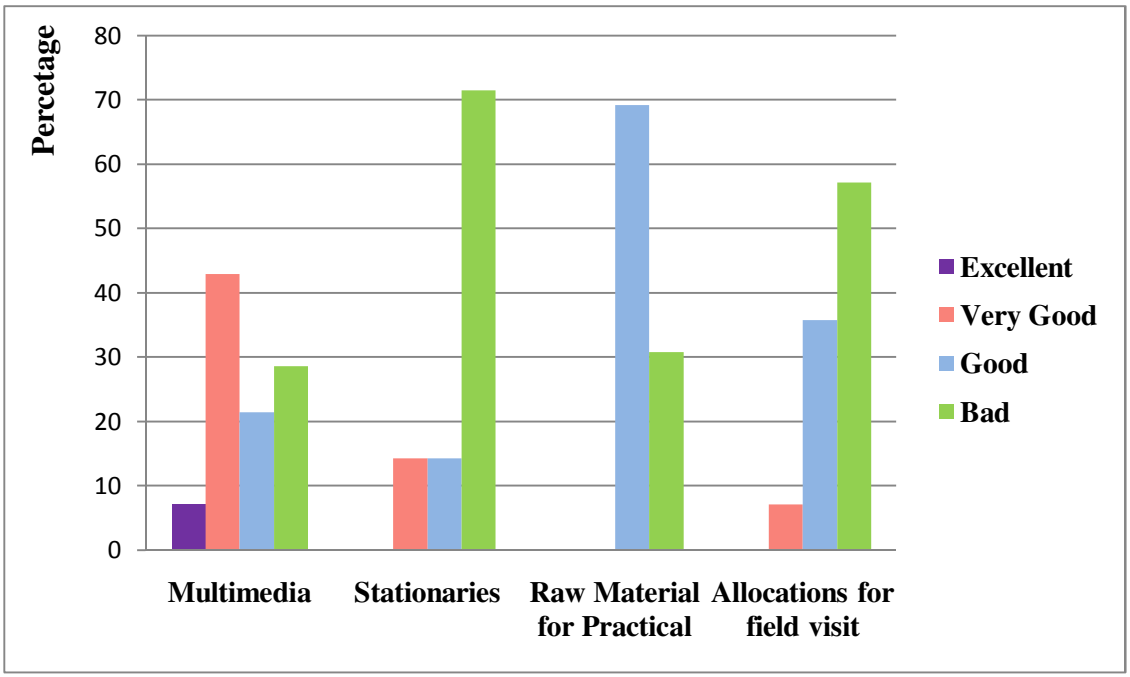


Figure 11: Relationship between resources &Lecturer's responses

It is better to have required resources at correct time for the successive teaching learning process. According to the lecturer's view allocations for stationaries and Field visit not sufficient. On the other hand raw materials required for practical classes are not supplied on time & inadequate. Students mentioned that Multimedia Facilities are used in adequately in teaching Learning process.

4.7.3. Amount of students applied for NVQ5/6 Diploma Programmes

Table 17: No of qualified students applied for different courses

View about No. of students	No. of responses	Percentage
Sufficient	4	28.6
Not Sufficient	10	71.4

According to the results shown in table 17, 71.4% responses showed that there were no sufficient qualified students to enroll for the NVQ5/6 Diploma programmes. Since there are few NVQ 3/4 Courses & less no. of students enroll to follow diploma as While 28.6% says that difficult to find a sufficient no of qualified students for diploma programmes.

4.8. Students Evaluation Procedure

4.8.1. Satisfaction about the Summative Assessment

Table 18: Satisfaction about the Summative Assessment

View about Summative Assessment	No. of Responses	Percentage (%)
Satisfied	4	29
Not Satisfied	10	71

According to the data shown above 71% of lectures mentioned that they were not satisfied about summative assessment. There are several constrains such as arrange exam with a short notice without considering academic schedule; prepare question papers out of the syllabuses, paper setting is done for the all subjects by one person and some subject matters are not assessed so far are existing in summative assessment.Also 60 % of CoT Directors have stated that they are not satisfied about summative assessment. These data revealed that exam procedure should organize in proper manner to enhance the course effectiveness.

4.8.2. Required amount of Assessors for NVQ5/6 Diploma programmes

Table 19: Required amount of Assessors for NVQ5/6 Diploma programmes

View about No. of Assessors	No. of responses	Percentage
Sufficient	9	64.2
Not Sufficient	5	35.7

There is not sufficient Registered Assessors for some technological areas. Because of this reason it is difficult to schedule student's final assessment in time. Most of the assessors are not aware about the assessment procedure and also some of them are not followed the assessor training. Because of the above reason final assessment is not materialized properly.

4.8.3. Industrial Training

4.8.3.1. Inspection of student's Industrial training

Table 20: Inspection of student's Industrial training

View about Industrial Training	No. of responses	Percentage
Inspect	11	78.6
Not Inspect	3	21.4

Industrial training placement & inspection are carried out by the NAITA. Since this process is not properly function 78.6% of Academic staff members are voluntarily inspect students when they are in their industrial training.

When considering the view of the industrial training of students 28.6% of academic members and 60 % of CoT Directors have stated that they are not much satisfied with it and 50% of academic members have mentioned that they are not satisfied about industrial training.

4.8.3.2. View about Industrial Training

A chi-square test was performed to evaluate whether there is a relationship between the view about students' industrial training &Academic staff response.

Finding revealed that there is a significant relationship between two parameters. "p" value for the test is below 0.05 .

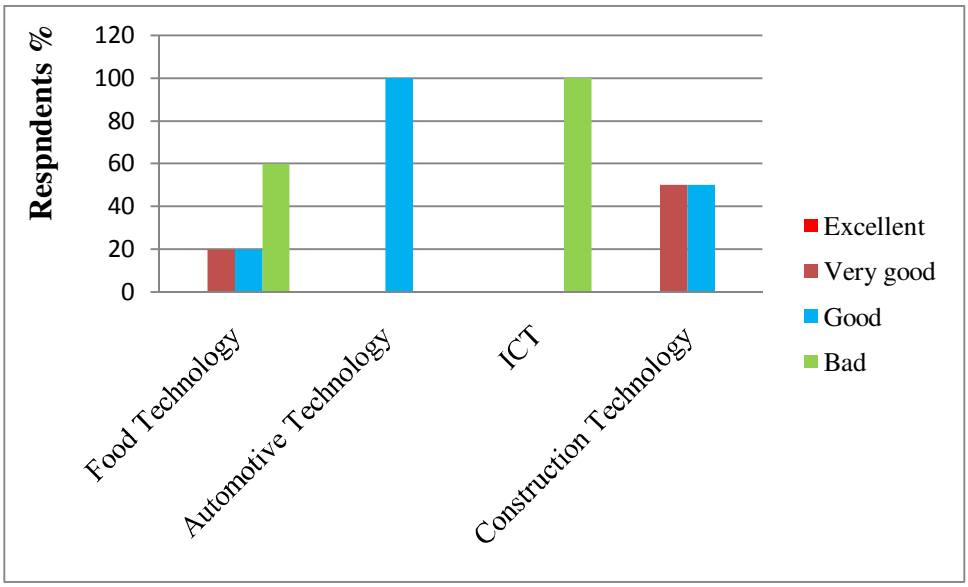


Figure 12: Relationship between student's Industrial Training with Different Diploma Programmes

Based on the results all most all the Academic staff members in automotive technology are stated that industrial training was good. In Information Communication Technology, it was the opposite. Academic staff of construction Technology was totally satisfied with their student's industrial Training But in Academic staff of Food Technology stated that 60% was not satisfied about Industrial Training.

4.9. Constrains in Syllabus

4.9.1. View about the syllabus

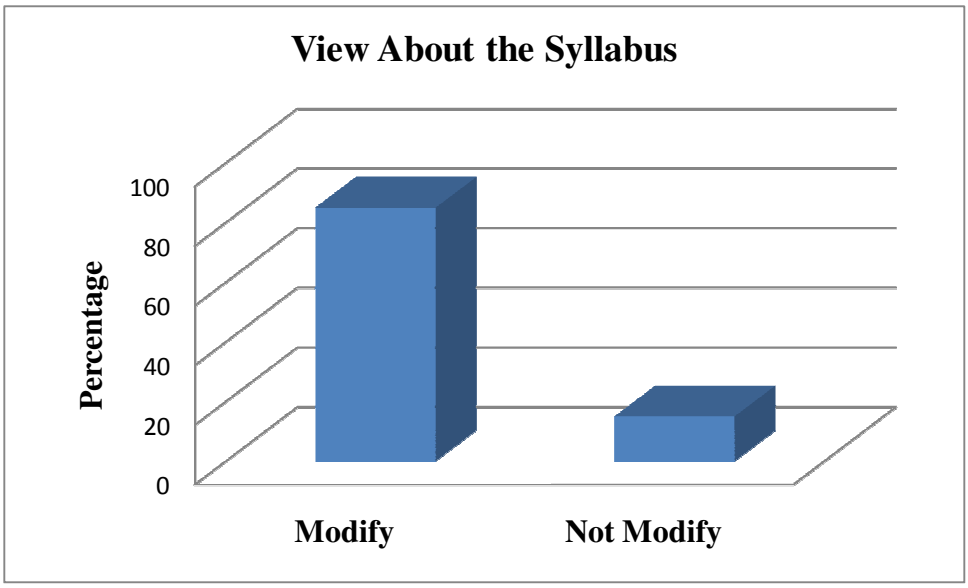


Figure 13: Lecture's view aboutsyllabusesof NVQ5/6 Diploma Programmes

Figure 12 showed that 85% of lecturesstated that syllabus should have to be revised.

4.9.2. Compatibility of Course Content with Job Market

Table 21: Compatibility of Course Content with Job Market

View of Compatibility of Course Content with Job Market	No. of responses	Percentage
Compatible	13	93
Not Compatible	3	7

In all the technological areas students are given broad knowledge & practical skills. Therer for they can perform well in their technology area. Based on the Lecture's view also 93% have mentioned that the course content more compatible with the job marketdemand.

4.10. Course Content

4.10.1. View about the Course Content

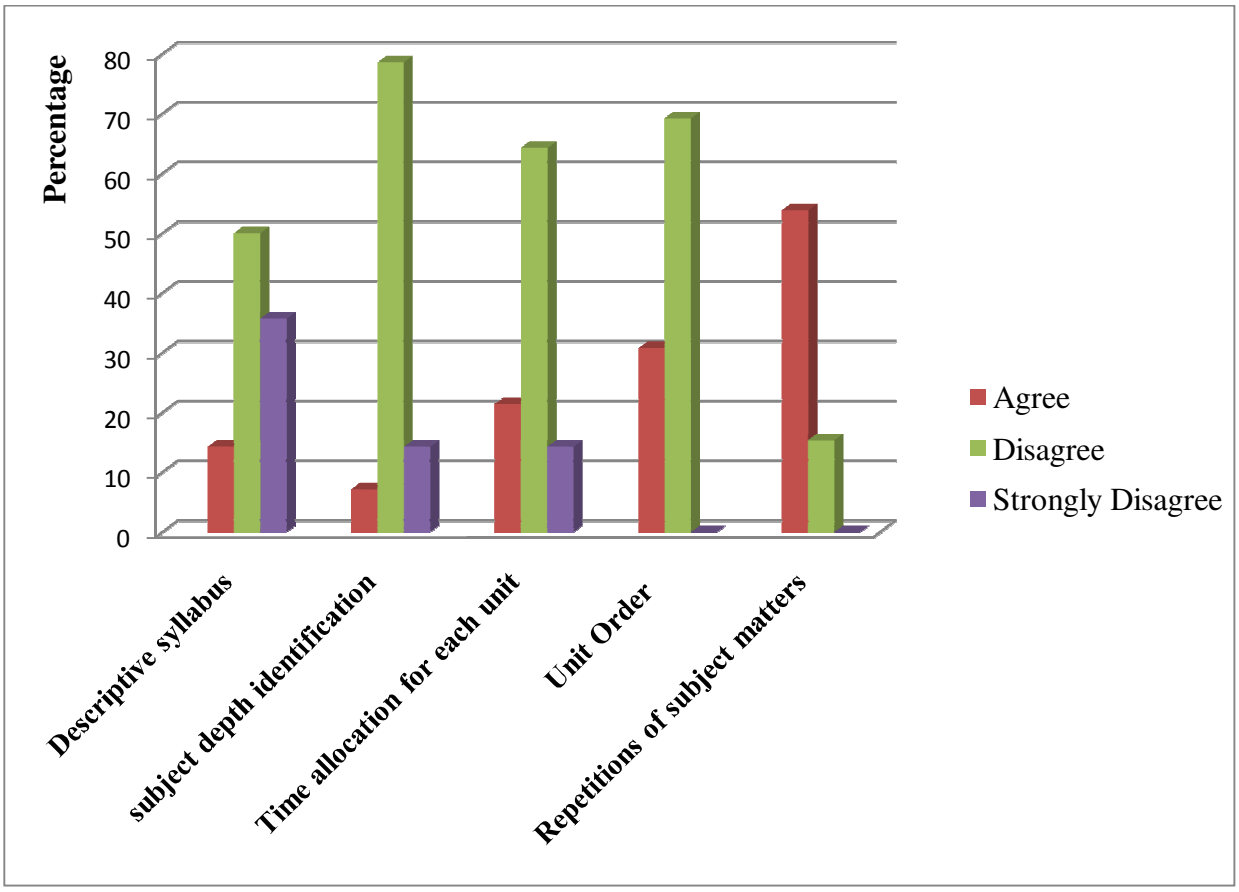


Figure 14 : View about the Course Content

Majority of academic staff members are stated that the syllabuses are more broad and subject matteres to be taught is not specially mentioned.it is difficult to identiy the depth of the learning content.

4.10.2. View about Course Quality

A chi-square test was performed to evaluate whether there is a relationship between the required resources & student's responses.

Finding revealed that there is a significant relationship between two parameters. "p" value for the test is below 0.05.

Table 22 : view about the course quality

Quality Parameters	Excellent	Very good	Good	Bad
Subject Knowledge&Presentaion	10	30	17	14
Practical Knowledge	8	25	19	19
Practical Activities	8	15	29	18
Field visit	5	19	13	31
Awareness for job opportunities	6	15	22	26
Facilities	16	17	17	20
Industrial Training	10	13	16	27

Practical knowledge & the subject knowledge,facilities, sufficient allocations are the key factors for the effectiveness of a course. Since inadequate allocations, practical activities and field visit couldn't conduct. 40.27 % of students mentioned that they are not satisfied with practical activities.

4.11. Course Completion & Job Opportunities

Summary of student performance (Examination results) by course in 1st sitting

NVQ Level 5& 6 Courses condcuted by Colleges of Technology-2011 July

Table 23: Summary of student performance (Examination results) by course in 1st sitting, 1st semester

Course Name	Course code	Semester I			
		No. Sat	No. Qualified	No. not Qualified	% Qualified
Higher Diploma In Welding Technology	ETA12	8	0	8	0.00
Diploma in Telecommunication Technology	ETB 01	12	7	5	58.33
Diploma in Mechatronics Technology	ETB 04	12	1	11	8.33
Diploma in Construction Technology	ETB 06	82	24	58	29.27
Diploma in Automobile Technology	ETB 07	42	19	23	45.24
Diploma in Refrigeration & Air Conditioning Technology	ETB 08	17	2	15	11.76
Diploma in Farm Machinery Technology	ETB 09	7	6	1	85.71
Diploma in Information & Communication Technology	ETB 11	181	96	85	53.04
Diploma in Welding Technology	ETB 12	12	0	12	0.00
Diploma in Food Technology	ETB14	10	9	1	90.00
Diploma in Production Technology	ETB 16	7	5	2	71.43
Total		390	169		

Table 24: Summary of student performance (Examination results) by course in 1st sitting,2nd semester

Course Name	Course code	Semester II			
		No. Sat	No. Qualified	No. not Qualified	% Qualified
Higher Diploma In Welding Technology	ETA12	0	0	0	0.00
Diploma in Telecommunication Technology	ETB 01	12	7	5	58.33
Diploma in Mechatronics Technology	ETB 04	0	0	0	0.00
Diploma in Construction Technology	ETB 06	81	23	58	28.40
Diploma in Automobile Technology	ETB 07	42	15	27	35.71
Diploma in Refrigeration & Air Conditioning Technology	ETB 08	17	11	6	64.71
Diploma in Farm Machinery Technology	ETB 09	7	6	1	85.71
Diploma in Information & Communication Technology	ETB 11	164	70	94	42.68
Diploma in Welding Technology	ETB 12	12	1	11	8.33
Diploma in Food Technology	ETB14	10	7	3	70.00
Diploma in Production Technology	ETB 16	7	4	3	57.14
Total		352	144		

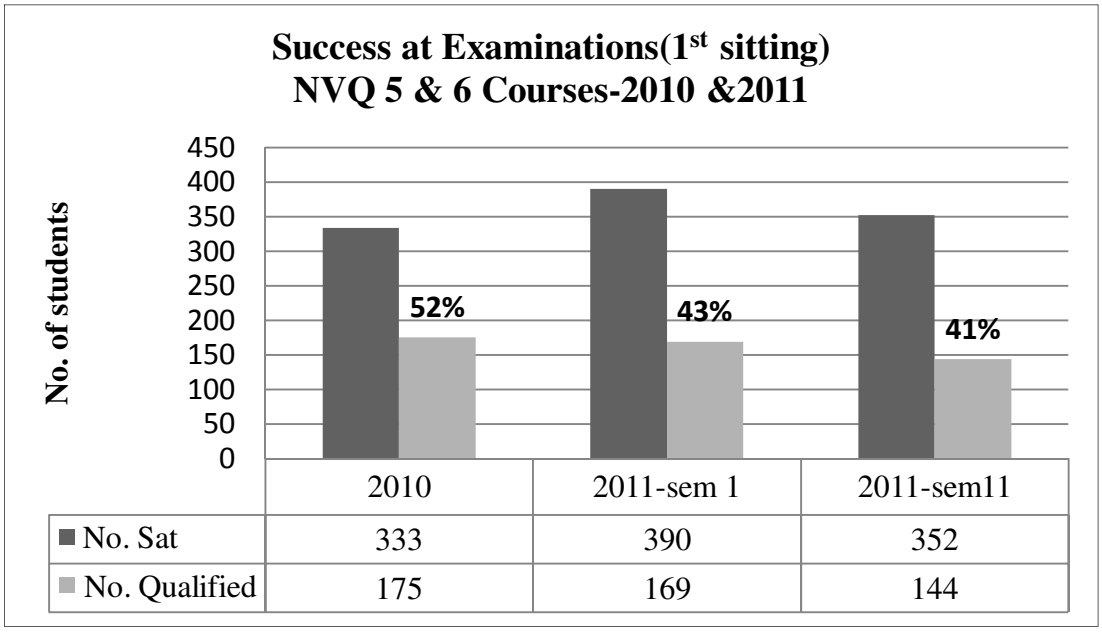


Figure 15:Success at Examinations(1st sitting) NVQ 5& 6 Courses 2010 & 2011

Figure 14 showed that 52% of Students have passed the written exam to obtain eligibility for the final assessment in 2010 & it was declined in year 2011 as 43% in first semester & 41% in second semester.

4.11.1.Job opportunities & achievements

Table 25: job opportunities of NVQ5/6 Diploma students

	No. of Responses	Percentage(%)
Employed	22	32.3
Not employed	46	67.6

4.11.2.Compatible of job with course followed

Table 26: Compatible of job with course followed

View about Job	No. of responses	Percentage (%)
Compatible	20	95.2
Not Compatible	1	4.8

One major objective of these courses are employability of NVQ5/6 Diploma holders in suitable industries in suitable position. It is stated that 32.3% are employed and 67.6% are not employed. Out of 22 employee 95.2% of employees are in relevant industries in suitable position and says that the knowledge of theories and practicalityobtained from the course is sufficient for their job.

A chi-square test was performed to evaluate whether there is a relationship between the students' Qualification with achievementsobtained by NVQ5/6 Diploma Programmes.

Finding revealed that there is a significant relationship between two parameters. "p" value for the test is below 0.05.

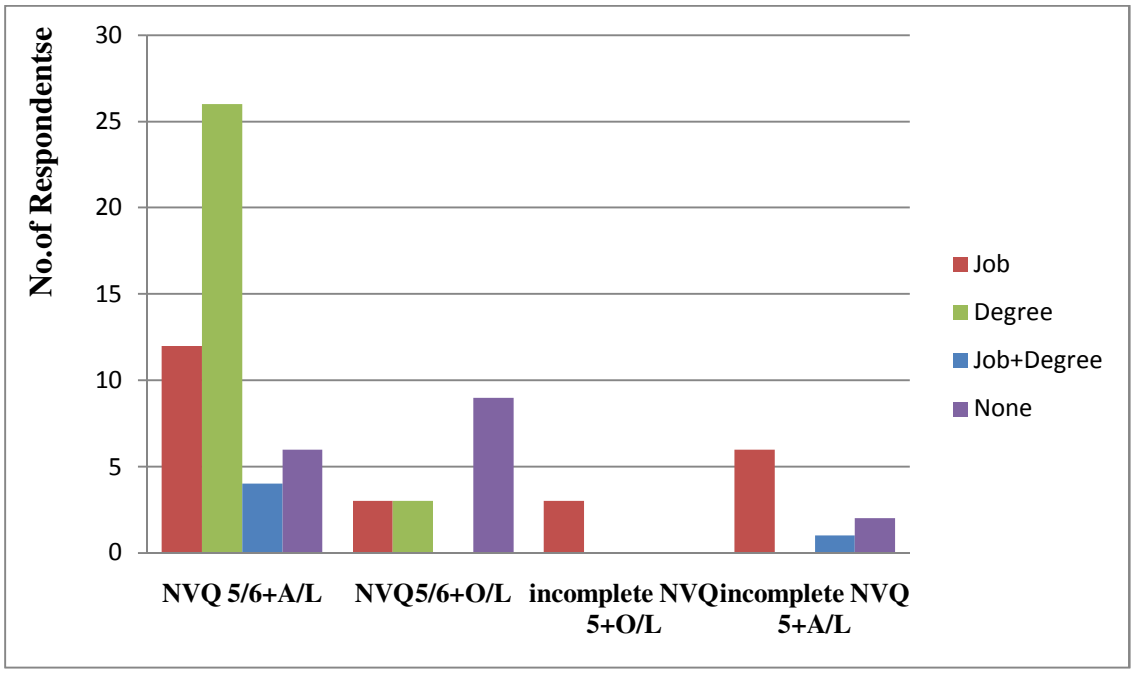


Figure16:Relationship of student's Qualification with achievements

Figure 15 mentioned that 16% students who have obtained both NVQ5/6 and A/L qualification are employed.34.6 % of students have the same qualification mentioned above are following the degree courses at UNIVOTEC. In this series three out of six are following NVQ6 Programmes while others are not employed. Students who have obtainedboth NVQ5/6 and O/L qualifications are not employed as with A/L qualifications. According to the Srilankan standards, most of the recognized jobs are designed for based on the A/L qualification. Because of that time has come to develop policies to include NVQ qualification in the job description even at least government job.

4.12.Importance of Employability skill subject for the Profession

Table 27: Importance of Employability skill subject for the Profession

Job Category	More Relevance (%)	Fairly Relevance (%)	Relevance (%)	Not Relevance (%)
Relevance job	33	25	25	17
Not Relevance job	0	0	0	100

Around 33% of passed out students mentioned that the employability skill subjects they followed had been an additionalqualification for their employment and knowledge of theories and practicalityobtained from the subject ismore relevant for their job. While 17% stated that employability skill subjects they followed not relevance to their current job.

4.13.Industry perspective about NVQ5/6 Diploma Programmes

The relationship between the technical institutes and industries are very important when considering the effectiveness of a course. Based on the results it is clearly stated 75% industries are aware about NVQ 5/6 courses and job position which they should recruit. 63% of industries have been identified NVQ5/6 Diploma as recruit qualification for different job position.Majority of the industries got the awareness about NVQ5/6 Diploma programmesthrough the trainee. When organizing industrial training can develop strong relationship with industries.Rather than this organizing industrial day create more effective communication in between these two parties.

Unlike in other courses like NDT, NCT, NCIT, NVQ5/6 qualification is not gazette or it is not mentioned in the job qualification descriptions. Therefore it is a must to develop proper recognition about the NVQ5/6 Diploma in both government and private institutes.

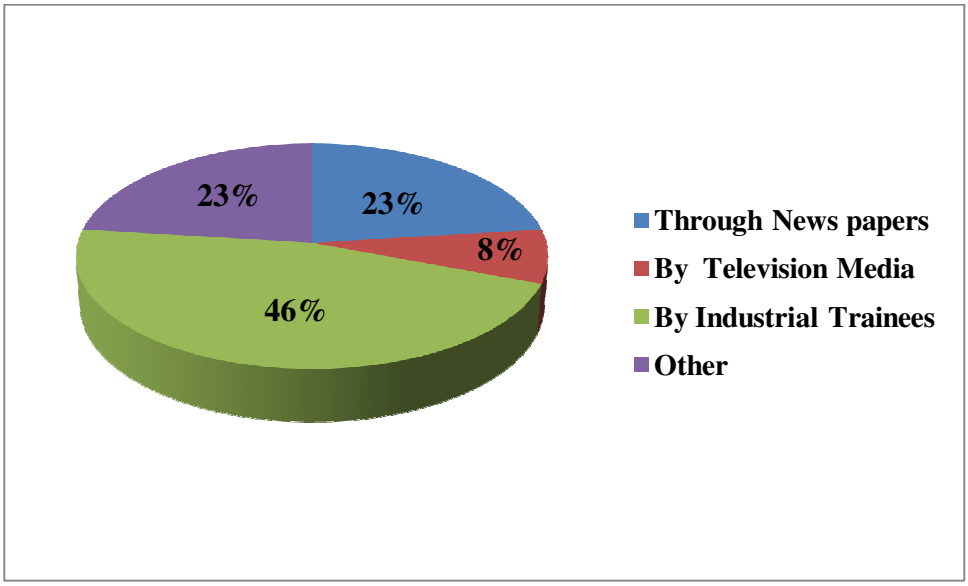


Figure 17: Awareness method about NVQ 5/6 Courses by Industry

CHAPTER 05

CONCLUSIONS AND RECOMMENDATIONS

Both qualitative and quantitative data collected by using the questionnaires, and observation schedules and at focus group discussions have revealed the following findings.

CONCLUSIONS

- Male participants dominate the trainee population of NVQ5/6 Diploma Programmes.
- Among five awareness methods, Data showed that information about courses conveyed by friends are more effective than other methods.
- 47% of the respondents were mentioned that there is a social recognition for NVQ5/6 Diploma Programmes and while22% has mentioned that there is no social recognition for NVQ5/6 Diploma.
- For some NVQ5/6 programmes have high demand but for these high demanding courses comparatively less no students are taken. In some courses student's attendance capacity is comparatively low than required intake capacity.
- All most all academic staff members have degree qualification or Diploma qualifications. None of certificate holders are teach for NVQ5/6 Diploma Programes.All the members of staff of NVQ5/6 Diploma programmes were improved their industrial experience by the industry based skill upgrading training programme in locally & internationally. So academic staffs of NVQ5/6 Diploma programmes are the fully qualified in their profession.
- 36% Academic Staff were not given the in service training. Out of staff members who were participated for the in-service training 66.7% stated that the training was not that much relevance to the subjects they are teach.
- The majority of Academic staff in Diploma Programmes is newly recruited & has less teaching experiences. Not only them but also well experienced staff members are also involve in teaching in these courses.
- 42% of lecturers are used all the methods of teaching

- Attendance of students is favourable because it is compulsory to maintain their attendance at 80% for the eligibility of summative assessment and also students who attended lecturers regularly showed best results rather than others.
- Teaching learning process is mostly inspected by internally. External infection is carrying in low level.
- There are no teacher guides or trainer guide published upto date.
- According to the student's view allocations for stationaries and Field visit not sufficient. On the other hand raw materials required for practical classes are not supplied on time & inadequate but Multimedia Facilities are adequate. 40.27 % of students mentioned that they are not satisfied with practical activities.
- 71% of Academic staff was not satisfied about summative assessment and 60 % of CoT Directors have stated that they are not satisfied about summative assessment.
- There is not sufficient Registered Assessors for these technological areas.
- 28.6% of academic staff members and 60 % of CoT Directors have stated that they are not much satisfied about student's Industrial Training and 50% of academic staff members have mentioned that they are not satisfied about industrial training.
- 85% of lectures stated that syllabus should have to be revised.
- 93% of lectures mentioned the syllabuses of NVQ5/6 diploma programmes are compatible with market demand.
- 52% of Students have passed the written exam to obtain eligibility for the final assessment in 2010 & it was declined in year 2011 as 43% in first semester & 41% in second semester.
- 32.3% passed out students are employed and 67.6% are not employed. Out of employees95.2% of employees are in relevant industries in suitable position and stated that the knowledge of theories and practicality obtained from the course is sufficient for their job.
- 16% of students who have obtained both NVQ5/6 and A/L qualification are employed. 34.6 % of students have the same qualification mentioned above are following the degree courses at UNIVOTEC. In this series 6.25% are following NVQ6 Programmes

while others are not employed. Students who have obtained both NVQ5/6 and O/L qualifications are not employed as with A/L qualifications.

- Around 33% of passed out students mentioned that the employability skill subjects they followed had been an additional qualification for their employment and knowledge of theories and practicality obtained from the subject is more relevant for their job.
- 75% of industries are aware about NVQ 5/6 courses and job position which they should recruit. 63% of industries have been identified NVQ5/6 Diploma as recruit qualification for different job position.Majority of the industries got the awareness about NVQ5/6 Diploma programmes through the trainees.
- Employers suggested to training providers to focus more on practical training within the training period, Attitude development of trainees as punctuality & team work and training on modern technology.
- Though the information Management system is existing, the system does not provide required information like employability data when taking decision in different courses.

RECOMMENDATIONS

1. To improve the student demand proper procedure should be made. Hence following suggestions can be made;
   Update the syllabuses.
   Establish proper procedure to ensure employing.
   Develop of existing courses up to the competitive standards maintaining in other parallel institute.

2. To establish proper procedure to improve employability of students and awareness about NVQ5/6 Diploma Programmes following actions have made;
   - Conduct awareness programme for industries in collaboration with NAITA and DTET . Thereby develop Industrial Training in a formal manner
   - Develop policies to include NVQ5/6 Diploma qualification in the job description even at least government job.

- Publicity and awareness on NVQ5/6 Diploma Programmesshould be strengthen using mass media.
- Arrange industrial visit with current students of NVQ5/6 Diploma programmes

3. In service training that was provide for academic staff not much relevance to subjects they are teach. There should be a recommended procedure to award more relevance in service training for academic staff.
4. It is better to have required resources at correct time for the successive teaching learning process. Practical knowledge & the subject knowledge, facilities, sufficient allocations are the key factors for the effectiveness of a course. Since inadequate allocations, practical activities and field visit couldn't conduct. For the proper functioning of diploma courses sufficient allocations should be provide on time.
5. In the teaching learning process teacher guide provide good direction to teach. But in NVQ5/6 programmes, there is no such teacher guides. In teacher guide under each topic objectives of the lesson, subject matters to be covered to achieve objectives, assessment procedure is clearly mentioned. Therefore teacher guide should be made. It provides good direction to teach. Majority of academic staff members are stated that the syllabuses are broader and subject matters to be taught are not specially mentioned.it is difficult to identify the depth of the learning content.Not only preparing teacher guide it is must to revise the syllabuses in appropriate time.
6. There were no sufficient qualified students to enroll for the NVQ5/6 Diploma programmes. Since there are few NVQ 3/4 Courses & less no. of students enroll to follow diploma and difficult to find a sufficient no of qualified students for diploma programmes. To overcome this problem, the following action should be taken;
    - There should be syllabuses revising of existing courses and develop more NVQ 3 and 4 courses in new technological streams.
    - Making the course content compatible for the enrolling students.
    - Introduce the technology subject to the secondary Education System specially for Advanced level subjects streams.

7. Academic staff and Directors of CoTs have stated that they are not satisfied about summative assessment of Diploma Programmes. There are several constrains such as arrange exam with a short notice without considering academic schedule, prepare question papers out of the syllabuses, paper setting is done for the all subjects by one person and some subject matters are not assessed so far are existing in summative assessment. To resolve the existing constrains following suggestions can be made.
    - Maintaining a question Bank
    - Arrange workshop for each course with paper setters and relevant lecturers to discuss above matters.
    - Prepared papers should be moderated by external qualified person
8. In some technological areas, there is not sufficient Registered Assessors. It is difficult to schedule student's final assessment in time. To resolve this problem resource person who worksin industries in relevant technological field should give proper assessor training.
9. Teaching learning process is mostly inspected by internally. It is better to do this inspection via external party and also this should do as a continuous process.
10. Should include all required information in information Management system. It will help to take decision in different courses.

CHAPTER 07

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16’ m s, s; r= k e ; k u s NVQ 6 m d G u d , d j y o d r k a f k a@

T j s [1] k e ; ’ [2]

17’ b y ; m s, s; r= T j s k u s f i a j d w d h ; k h l = l a@

‘’’’

18’ T n f . a ; k ; r= i o y k a l r k d k ’

‘’’’
’’

19’ T n f i a j h g n o j d . e k s f u s o S i ¥ i d l u s f , I i , l k , o a f o a l = l a@

w’ f m d’ i d’ f m<	1
w’ f m d’ i d W’ f m<	2
NVQ 5$6 i y ; s l h	3
f j k ;	4

20’ T n w d h ; k f h d NVQ 5/6 m d G u d , d j , y o d r K , o ú I h o e k a q T n f . a ; k ; =f r y s r d c l d Í i o y d j e o . ; a f j s o@

T j s [ ] k e ; ’ [ ]

21’ T n y e o E r E NVQ 5/6 m d G u d , d f õ / l sh d m d o l k s m a K ; d ú I h ^Employeebility Skills) T n f . a ; k ; =f r y s r d c l d ß i | y d f l d f ; l a ÿ r g j e o . ; a j Q h a o@

b ; d u ; a w o d< h	1
; r u l a ÿ r g w o d< h	2
w o d< h	3
w o d< f k d f õ	4

21'Tnf .a / lshdj ms,sno Tn ;Dmq;su ;éA@

Tjs ☐ ke;' ☐

22' ke;skï Bg fya;=o lgi kdk'

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Tn oel lgqi yfhda hg iq;=;sh

ld¾ñl wOHdmk yd mqyqKq lsrSfus fomd¾;fuskaq;=

;D;Shsl yd jD;a;Sh wOHdmk fldñIka iNdj u.ska ixúOdkh lrkq ,nk m¾fhaIK jevigyk

;dlaIK úoHd,j, meje;afjk cd;sl jD;a;Sh iqÿiqlus NVQ 5/6 uÜgñ mdGud,dj, M,odhs;djh ms<sn| wOHhkh

fuu m%Yakdj,sfhka ,nd.kakd f;dr;=re, rysiHNdjh wdrlaId lrk w;r m¾fhaIK ioyd muKla fhdod .kq ,efns'

wod< isiqkfhal ;sr i,lK ^√& fydabv ;nd we;s isiqkfhams<s;=re ,shkak'

<u>wdh;k m%Odkskai|yd m%Yakdj,sh</u>

1.1 පළාත ....

1.2 දිස්ත්‍රික්කය ....

1.3 නිලධාරියාගේ නම ....

1.4 ආයතනයේ නම ....

1.5 ලිපිනය ....

2. ඔබ ආයතනය තුළ NVQ 5/6 පාඨමාලා පවත්වන්නේ ද? ඔව් ☐ නැත ☐

3. පිළිතුර "ඔව්" නම් පහත සඳහන් විස්තර සපයන්න.

3.1 පාඨමාලා තොරතුරු

පාඨමාලාව	කාලසීමාව	ඇතුළත් වීමේ සුදුසුකම්

3.2 ශිෂ්‍ය තොරතුරු

පාඨමාලාවේ නම		වසර			
		2010		2011	
		පිරිමි	ගැහැණු	පිරිමි	ගැහැණු
	පාඨමාලා සඳහා අයදුම් කළ සිසුන් ගණන				
	පාඨමාලාවට සහභාගි වූ සිසුන් ගණන				
	පාඨමාලාව සම්පූර්ණ කළ සිසුන් ගණන				
	රැකියාගත සිසුන් ගණන				
	පාඨමාලා සඳහා අයදුම් කළ සිසුන් ගණන				
	පාඨමාලාවට සහභාගි වූ සිසුන් ගණන				
	පාඨමාලාව සම්පූර්ණ කළ සිසුන් ගණන				
	රැකියාගත සිසුන් ගණන				

4. එක් එක් පාඨමාලාවට අදාළව විෂය නිර්දේශ හා නිපුණතා සම්මත ප්‍රමාණවත් ලෙස පවතී ද?

ඔව් ☐ නැත ☐

5. පිළිතුර "නැත" නම් ඊට හේතු දක්වන්න.

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6. NVQ 5/6 පාඨමාලා වලට ප්‍රමාණවත් ආචාර්ය මණ්ඩලයක් සිටී ද? ඔව් ☐ නැත ☐

7. ඔබ ඔබගේ ආචාර්ය මණ්ඩලයෙහි ඉගෙනුම් - ඉගැන්වීම් ක්‍රියාවලිය අධීක්ෂණයට ලක් කරන්නේ ද?

ඔව් ☐ නැත ☐

8. ආචාර්ය මණ්ඩලයෙහි සංයුතිය

සුදුසුකම	සංඛ්‍යාව
සහතික පත්‍රධාරීන්	
ඩිප්ලෝමාධාරීන්	
උසස් ඩිප්ලෝමාධාරීන්	
උපාධිධාරීන්	

9. ඔබ ආයතනය තුළ ක්‍රියාත්මක වන පාඨමාලා සඳහා බඳවා ගැනීමට සුදුසුකම් ලත් ප්‍රමාණවත් සිසුන් සංඛ්‍යාවක් සිටී ද? ඔව් ☐ නැත ☐

10. පිළිතුර "නැත" නම් ඊට හේතු දක්වන්න.

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11. ප්‍රමාණවත් සිසුන් සංඛ්‍යාවක් බඳවා ගැනීමට ඔබ කරනු ලබන යෝජනා මොනවා ද?

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12. NVQ 5/6 පාඨමාලා පවත්වාගෙන යාමේ දී ඒ සඳහා අවශ්‍ය සම්පත් පිළිබඳ ඔබේ අදහස

(1 - ඉතා හොඳයි, 2 - හොඳයි, 3 - සතුටුදායකයි, 4 - අසතුටුදායකයි)

(පහත එක් එක් ප්‍රශ්නවලට අදාළව පිළිතුර තෝරා සටහන් කරන්න.)

- දේශන සඳහා අවශ්‍ය බහුමාධ්‍ය පහසුකම් ☐
- පුහුණු ද්‍රව්‍ය (ප්‍රායෝගික පරීක්ෂණ සඳහා අමුද්‍රව්‍ය හා උපකරණ ලැබීම්) ☐
- fClaෳ%රිකා සඳහා ප්‍රතිපාදන වෙන් කිරීම ☐
- ලිපිද්‍රව්‍ය ලැබීම් ☐
- ගොඩනැගිලි ☐

13. ඔබ NVQ 5/6 පාඨමාලා වලට අදාළ විභාග පිළිබඳ සෑහීමකට පත් වන්නේ ද? ඔව් ☐ නැත ☐

14. පිළිතුර "නැත" නම් ඒ සඳහා හේතු දක්වන්න.

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15. සිසුන්ගේ කර්මාන්තගත පුහුණුව පිළිබඳ ඔබේ අදහස

ඉතා හොඳයි	1
හොඳයි	2
සතුටුදායකයි	3
අසතුටුදායකයි	4

16. පිළිතුර "අසතුටුදායක" නම් ඒ සඳහා හේතු දක්වන්න.

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Tn oelajqiyfhda.hg ia;=;shs

l¾ñl wOHdmk yd mqyqKq lsrSfus fomd¾;fuskaq;=

;D;sh yd jD;a;sh wOHdmk fldñika iNdj u.ska ixúOdkh lrkq,nk m¾fhaIK jev igyk

;dlaIK úoHd,j, meje;afjk cd;sl jD;a;sh iqÿiqlus NVQ 5/6 ugug usmdGud,dj, M,odhs;djh ms,sno wOHhkh

fuu m%Yakdj,sfh ka,nd. kdkd f;dr;=re j, ryiHNdjh wdrlaId lrk w;r m¾fhaIK ioyd muK lrd fhdod .kq,efns'

wod, iaEdkfhal ;sr i,l=K ^<& fydabv ;nd we;s iaEdkfhams,s;= ,sh kdk'

<u>wdpd¾h uKAv,h ioyd jqm%YAKdj,sh</u>

1'fm!oa,sl f;dr;=re

1'1' iq;%Sond;eI Ndjh

	1
	2

1'2' miq.sh Wmkaoskg Tnf.a jhi w'jq lSño@''

1'3'Tnf.awOHdmk iqÿiqlus

˜odiq;%%;$ úoHdm;	1
Wmdê^úoHdfjoS$l,dfjoS&	2
NDT	3
HNDE	4
NCT	5
fjk;a^ioykalrkak&	6

1'4'Tnf.ajD;a;S$ iqÿiqlus

mdYAd; aWmdê wOHdmk ämqf,dud	1
wOHdmk ämqf,dud/l¾ñl yd jD;a;S$ wOHdmk ämqf,dud	2
.=re ämqf,dud	3
.=re mqyqKqiy;sl h	4
fjk;a^ioykalrkak&	5

02' fiajd f;dr ;=re

02' 01' Tn NVQ uÜgfï 5$6 mdGud,dj ioyd W. kajk úIh/ úIhh kaiy tu úIh kg yñ

ld, iSudj kaioy kalrkdk (NVQ 5/ 6 uÜgfï iudisl fof l ys)

úIh	iudisl h	uÜgu (NVQ 5/6)	meh . K k	
			fodY k	m%fhda sl / l¾Ia;% pdrsl d
01				
02				
03				
04				
05				
06				

02' 02 NVQ uÜgfï5$6 mdGud,dj , úIh kg wu;rj fj k ;amdGud,dj , úIhh kab .ekaj$fuì

k;r ;j kd¾kakusta u úIhh kaioy kalrkdk

,,,
,,,
,,

02' 03' Tnf.a/ lshdfjsmok u l=u l¾@

ia;%s ☐

mqreI ☐

02' 04' ;dlal K úoHd, fhab .ekaj$fus l¾Ia;% % ;= Tnf.am<mqreoao

jir 1g wv	1
jir 1-5	2
jir 5-10	3
jir 10-15	4
jir 15 jeä	5

02' 05 fuu ;ddldK úoHd, fhaTnf .afiqd ld, h

j ir 1 g wv	1
j ir 1-5	2
j ir 5-10	3

02' 06 Tnf .aúIhg wod, j úIh k¾foaYh yd ksmqK ;d iusu ; Tng ,eî ;sfnso @

Tjs ☐ ke; ☐

02' 07' ms<s;=r ke; kus taioyd fya;= olajk kd'

''
''

''

02' 08'úIhg wod, mqyqKqw ;ajmd; aTng ,eî ;sfnso@

Tjs ☐ ke; ☐

02' 09' ms,s;=r ke; kusBg fya;= olajk kd

''

''

02' 10'Tnf .amdGud,djg wod, úIh k¾foaYh ms<sno woyi jkqfka

	tl . fj®	tl . fkdfj®	lsisfia;au tl . fkdfjñ
1' úIh k¾foaYh úia;r d;au l fjs			
2' úIh k¾foaYfhays tlat latd l fhysúIh .eUq; y¥kd .; yelsh's			

3' tlattlatdl lhg ,nd oSwe;sld,h m%dKj;dj'			
4' tzl l f.dvke.swe;swdldrh úêu;afjš			
5' tlu úIh lreKq úIhhkalsyñhl wkq;¾.; fjš			
6' fjk;aioykalrkak			

02' 11' oekg mj;akd úIh k¾foaYh fjkiala, hq; =hehsTn is;kjdo@

Tjs ☐ ke; ☐

02' 12 Tjskusfjkial, hq; =úIhkaiy úIh fldgiaioykalrkak'

1 ''

2' ''

3' ''

4' ''

5' ''

02' 13 Tng m%dKj;amrsjsb.ekSuuswdOdrl mj;ajso@

Tjs ☐ ke; ☐

02' 14 ms,s;=r ke; kusfyq;= olajkak ''

''

02' 15' mkq;sldur b.ekSuuj ,oSTn Ndú;d lrk Wmlrk fudkjdo@

1' ''

2' ''

3’ ’’

4’ ’’’

5’ ’’’

02’ 16’ Tnf.aúIh b.ekúfuoSTn ljr b.ekùfus l%h Ndú;d lrkdfka@

idlpsPd	1
mejreï	2
lKardhus l%d lrlu	3
ldIa; %pdrsld	4
foaY k	5
fjk ;aioykalrkak'	6

02’ 17’ Tnf.aúIh ioyd isidkameñ KS.s hym;augqgul mj;skdfka@

Tjs ☐ ke; ☐

02’ 18 YsIhkdf.zmeñ KS.s ¥¾j, kusthg fya;=olsj kdk

1‘ ’’

2‘ ’’’

3’ ’’’

4’ ’’’

5’ ’’’

02’ 19’ Tnf.abf. kqs l%dj ,sh wël dIKhg , ldf l f¾o@

Tjs ☐ ke; ☐

02'20' tfiakus tal jfrl =u .ská@

wxY mÞ%ñk	1
wOH l¿	2
w;s¾l wOH l¿	3
fomd¾;fusk;=ksfhdacs; fhl=	4
;D;SHsl yd jD;a;Sh wOHdmk fldñIka Ndj	5
fjk;aioykal rkak	6

02'21'Tnf.aúIhg wod,j fiajia mqyqKqúusTng ,nd oS;sfnso@

Tjs ☐ ke; ☐

02'22' ms<s;=r Tjs kusmqyqKqj fldf;l a¥rg Tfnsb.ekqïusflfrysn,md ;sfnso@

b;du;awod,h	1
;ru la¥rg wod,h	2
wod,h	3
wod, fkdfj	4

03'01 Tnf.amdGud,djg nojd .ekSug iyïid;us, ;aisiqkamß%dKj;a;ruswh¥us lrkqfka@

Tjs ☐ ke; ☐

03'02 ms<s;=r ke; kusfya;=olqj kak

1' ''

2' ''

3' ''

4' ''

5' ''

03'03' mß%dKj;aisiqkamß%dKhlanojd .ekSug Tn lrkq,nk fhdackd fudkjdo@

1‘ ’’’

2‘ ’’’

3’ ’’’

4’
’’’

5’
’’’

03’03’ Tnf .ab .ekqïs l%ñj ,sh ioyd wjYH iusm ;ams<sno Tfnswoyi

^1’b ;d fydohs 2’fydohs 3’i ;=qïdh lhs 4’ wi ;=qïdh lhs&

1’ fodaYk ioyd wjYH nyqudOH myidï us ☐

2’ ,smsøjH ,eÅï ☐

3’ m%f;Ydasl mrsldaK ioyd wuqøjH ,eÅï ^Wod-(ridhkslø jH, wdydr wuqøjH & ☐

4’ lïIa; %ïpdrsld ioyd m%jsmdok fjkalsrsu’ ☐

03’04’ isisjïï .al¾udka; .; mqyqKqj Tn wêldrsKhg ,lalrkïfka@

Tjs ☐ ke; ☐

03’05’isisjïï .al¾udka; .; mqyqKqj ms,snso Tfnswoyi

b ;d fydohs	1
fydohs	2
i ;=qïdh lhs	3
wi ;=qïdh lhs	4

03’ 06’ Tn olsk wdldrhg mdGud,fjswkq;¾ . ;h / lshd fj<o fmd,g fhdaH oehsioyka lrkdk’

Tjs ☐ ke; ☐

03' 07' ms,s; r= kE ; kus Bg fya; =o l gj kdk'

1' ''

2' ''

3' ''

4' ''

5' ''

03' 08' NVQ 5/6 mdGud,dj ,g wod, wjika,Ls; mrsld K h ms,sno Tn iEyS u g m ; gj kdf kda@

Tjs ☐ kE ; ☐

03' 09' ms<s; r= kE ; kus Bg fya; =o l gj kdk'

1' ''

2' ''

3' ''

4' ''

5' ''

03' 10' Tnf . amdGud,djg m%dfhda.sl ;awe. hdu' ls rEj kaisxl kdf kda@

Tjs ☐ kE ; ☐

03' 11' NVQ 5/6 mdGud,d id¾:l mdGud,d f, i Tn olskafkda@

Tjs ☐ kE ; ☐

03' 12 'ms<s; ‍= ke; kusmdGud,d id¾: l lr .ekSug Tn lrk fhdackd fudkjdo@

1' ''

2' ''

3'
''

4'
''

5'
''

iq` ‍;shs

ld¾ñl wOHdmk mqyqKq lsÍfï fomd¾;fïka;=

;D;Sl yd jD;a;sh wOHdmk fldñIka iNdj u.ska ixúOdkh lrkq,nk m¾fhaIK jevigyk

;dlaIK úoHd,j, meje;afjk cd;sl jD;a;sh iqÿiqlï NVQ 5/6 uÜgï mdGud,dj, M,odhs;djh ms,sno wOHkh

fuu m%Yakdj,sfhka,nd. kakd f;dr;=rej, ryiHNdjh wdrlaId lrk w;r m¾fhaIKh ioyd muKla fhdod .kq,efí'

wod, iaidkfhal ;sr i, l =K ^<& fydabv ;nd we;s iaidkfhams,s; ‍= ,sh kdk'

l¾udkq; l rej kaioydjqm%Yakdj,sh

1'wdh ; k fha k u ()''

2'f ; dr ; =eimh k ks<Odrshdf . a k u()''

3' ; k ; =()'''

4'f i j d l d , h()''

5 Tn wdh ; k h ;dldI K úoHd, j , mj ;q d cd ; sl jD ; q ,sh i¥iq ï 5$6 uÜg ïs^NVQ Level 5/6& mdGud,d ms,sno oek ; g iskao@

Tõ [1] ke ; [2]

6'ms,s; = Tõ k ïs ta l = k wdldrfh kao@

1'mqj ; m ; au . sk a	1
2'rEmjdyskS s udOH u . sk a	2
3' l¾udkq; . ; mqyqKqj g fhduqjqisiqkqf . ka	3
4'fj k ; a	4

7'NVQ 5/6 uÜg ïsmdGud,d id¾: l j ksu l , isiqka l¾udkq; . ; mqyqKqj ioyd Tn wdh ; k h fj ; fhduq l f ,ao@

Tõs [1] ke ; [2]

8' l¾udkq; . ; mqyqKqj id¾: l f , i ksu l , NVQ 5/6 ämqf ,dudOdrska f ldmuK m%udK h l a iskao@ ''

9'NVQ 5/6 mdGud,dj yeoerE YsIHh kaTn wdh ; kfhal ¾udkq; . ; mqyqKq i¾: l f,i ksu l f,ao@

Tõ 1 ke; 2

10' by ; ms,s;=re ke; kï tAioyd n,md we ; sfyq; =fudk jdo@

1'oekqu l+ , ;d wdl ,ul ixj¾Ok fhysysÕ l u 1

2'wd¾:sl wmyiq; d 2

3'fjk ;a 3

11'Tn wdh ; kfhaoe kg fldmuK msrsi lafiaj fhaks ,s isao@

1'f iaj l hsk a . K k 10g wvq 1

2'f iaj l hsk a . K k 10-100 ;aw ; r 2

3'f iaj l hsk a . K k 100g jeä 3

12'NVQ 5/6 ämq,dud Odr S kaTn wdh ; kfhafiaj fhaks ,S isao@

Tõ 1 ke; 2

13' ms,s; = Tõ kï tAf ldmuK ixLHdj lo@

14' Tjqkqf.a ; k ;=re kduh kai|yka l r kak'

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15'ms,s;= ke; kï Tjqkg ,ndosh yels ;k ;=re kduh kaioy kal rkdk

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16' by ;skaioy kal , ;k ;=re j,g fiùq lhskanojd .ekSfïoSNVQ 5/6 ämqï ,dnd iy ;sl h i¾iqj ulaf,i Tn wdh ;kh y¥kdf.k ;sfío@

Tõ [1] ke; [2]

17'by ; ioy kal< ;k ;=re ioyd wh¥ï l, yelswfk l=;a ;rÕ ldrSmdGud,d l jf¾o@

1 ,,

2 ,,

3 ,,,

4 ,,

18' wfk l=;amdGud,d yeoErE isiqkayd ;dldlK úoHd, cd;sl jD;a;Sh i¾iqj ï 5$6 ämqï ,dnd uÜgï yeoErE isiqkaw;r Tn olsk meyeos,sfjk idl ï ljf¾o@

1 ,,

2 ,,,

3 ,,

4 ,,

19’ tu fjk idl ï u . yerSa ioyd Tn lrk fhdlac kd fudkjdo@

1 ,,

2 ,,

3 ,,

4 ,,

Tn oelgiqiyfhda hg ia, =;shs