



# **Tertiary and Vocational Education Commission**

## **A Study for Searching Reasons for Lower Pass Rate of the Course of NVQ Level 5 in Colleges of Technology**

*Research By:*

*Ms. A.A. Anulawathe Menike*

**2013**

*Coordinated by:*

*Research Cell*

*Planning and Research Division*

**A STUDY FOR SEARCHING REASONS FOR LOWER PASS RATE OF  
THE COURSES OF NVQ LEVEL 5 IN COLLEGES OF TECHNOLOGY**

**A.A.ANULAWATHIE MENIKE  
DEPUTY DIRECTOR  
TESTING & EVALUATION UNIT  
DEPARTMENT OF TECHNICAL EDUCATION & TRAINING  
COLOMBO 10**

## **AUTHORIZATION**

I hereby declare that I am the sole author of this research report.

I authorize the Tertiary & Vocational Education Commission (TVEC) to lend this research report to other institutions or individuals for the purpose of scholarly research.

I further authorize the Tertiary & Vocational Education Commission (TVEC) to reproduce the research report by photocopying or by other means, in total or in part, at the request of other institutions or individuals for the purpose of scholarly research.

.....

A.A.Anulawathie Menike

## **ACKNOWLEDGEMENT**

Researcher wishes to convey her sincere gratitude to Mr.B.H.S.Suraweera, Acting Director General of TVEC and Mr.Ajith Polwatta, Deputy Director Research Unit, and also the other staff members who assisted this effort are very much appreciated. A special thank should go to Former Director General, Dr.Chithral Ambawatta who provided a clue for a research topic and the facilities.

She is also thankful to the CoT Directors, Deputy Directors, and Academic staff in the CoTs, students and assessors who provided necessary information for this research. Likewise researcher is grateful to the Director (Academic), Director (Testing & Evaluation), Deputy Director (Academic), and Deputy Director (Testing & Evaluation) and the other staff members of the Testing & Evaluation Unit of the Department of Technical Education & Training and also thankful to Mr.Rupasinghe, Deputy Director (Research & Development) for the provision of basic facilities to make this research a success.

Especially, researcher would like to thank her husband Mr.Sarath Mahindapala for the invaluable support given in compiling this research report, bearing all the delays occurred from her as the wife.

## EXECUTIVE SUMMARY

The Review of Vocational Qualifications in England and Wales (RVQ) Working Group report in April 1986 recommended the introduction of NVQs to address weaknesses in the then current systems of vocational qualifications. Amongst the weaknesses it identified were:

- no clear, readily understandable pattern of provision as well as considerable overlap, duplication and gaps in that provision
- many barriers to accessing vocational qualifications and inadequate arrangements for progression and transfer of credit
- assessment methods biased towards testing of knowledge rather than skill or competence
- insufficient recognition of learning gained outside formal education and training
- limited take-up of vocational qualifications.

The solution the working group proposed was that a clear, coherent and comprehensive system of vocational qualifications should be developed that would be directly relevant to the needs of employment and the individual. These national vocational qualifications (NVQs) should be:

"A statement of competence clearly relevant to work and intended to facilitate entry into, or progression in, employment, further education and training... incorporating the assessment of -

- skills to specified standards
- relevant knowledge and understanding
- the ability to use skills and to apply knowledge and understanding to relevant tasks".

Skills Development project established the NVQ system with the above criteria in Sri Lanka. Seven qualification levels were included in the new NVQ system. Researcher concerned about NVQ level 5 held in the COTs and tried to analyse the issues related to the lower pass rate.

Researcher gathered data from nine COTs (research population) for this research and obtained this data through questionnaires directed to Directors, Deputy Directors in COTs, Academic staff in COTs, students who passed out in 2011 and assessors. and interviews were conducted for

Researcher has concluded that COTs have many failures for the students pass rate such as failure of teaching learning process, limited physical resources and some failures of testing and evaluation system. Researcher puts forward recommendations to minimize the failures of the NVQ level 5 courses such as,

1. When updating courses, steps should be taken to prepare the subject content and the topics which should be taught in each module.
2. Teachers should give the syllabus to students in every course. COTs Directors should prepare a systematic way for giving syllabus to students.
3. English should be included as a subject in the syllabus of each course. The duration of the foundation course should be extended and its content should be amended to encourage the student to follow it etc.

## TABLE OF CONTENTS

<b>Chapter</b>	<b>Title</b>	<b>Page</b>
	Title Page	i
	Authorization Page	ii
	Acknowledgement	iii
	Executive Summary	iv
	Table of Contents	v-vi
	List of Figures	vii- ix
	List of Tables	x- xii
	List of Abbreviations	xiii
1	INTRODUCTION	1-3
2	LITERATURE REVIEW	4-29
3	RESEARCH METHODOLOGY	30-34
4	DATA ANALYSIS OFSEARCHING REASONS FOR LOWER PASS RATE OF THE COURSES NVQ LEVEL 5	35
4.1	Pass Rate ofNVQ Level 5 Held in CoTs	35-43
4.2	Nature of Courses	43-48
4.3	Student Entry Qualification	49-50
4.4	Curriculum for Teaching Learning Process	50-53
4.5	Academic Staff of CoTs	53-58
4.6	Teaching Methods	58-60
4.7	Teaching Resource Materials	60-65
4.8	Physical Resources for Teaching Learning Process	65-67

<b>Chapter</b>	<b>Title</b>	<b>Page</b>
	4.9 Testing and Evaluation System	67-81
	4.10 Industrial Training	81-83
5	CONCLUSION	84-87
6	RECOMMENDATION	88 -92
7	REFERENCES	92

## **LIST OF FIGURES**

Figure: 4.1. Whether the students are qualified or not	37
Figure: 4.2. Whether the student are competent or not	38
Figure: 4.3. Students' Competent percentages in National Diploma in Automobile Technology	39
Figure: 4.4. Students' percentage of Competence in National Diploma in Construction Technology	40
Figure: 4.5. Students' percentage of Competence in National Diploma in Information and Communication Technology	41
Figure: 4.6. Student Competent percentages in National Diploma in Farm machinery Technology and National Diploma in Food Technology	42
Figure: 4.7. Percentage of student competence in National Diploma in Telecommunication Technology and National Diploma in Production Technology	43
Figure: 4.8. Awareness of students of NVQ	44
Figure: 4.9. Students who answered relevantly for Q. No, 5	45
Figure: 4.10. Lectures knowledge about the difference between NVQ and non NVQ courses	46
Figure: 4.11. Reasons for selecting courses	47
Figure: 4:12. Course Accreditation	48
Figure: 4:13. Ideas of students about teaching in English medium	50
Figure: 4:14. Availability of Curriculum	51
Figure: 4:15. Whether the syllabus is given to students or not	52
Figure: 4:16. Students who had got the syllabus	53
Figure: 4.17. Adequacy of staff	54
Figure: 4.18. Adequacy of staff (According to Students)	55
Figure: 4.19. Field of academic staff who teach NVQ 5 courses	56
Figure: 4:20. Qualification of Academic staff.	57



Figure: 4.21. Professional Qualifications of Lecturers	58
Figure: 4.22. Teaching method that is followed by the lecturers	59
Figure: 4.23. Whether the subject matter is grasped or not	60
Figure: 4.24. Classroom materials used by lecturers	62
Figure: 4.25. Availability of electronic instruments	63
Figure: 4.26. Whether the record book is maintained continuously. ( according to students)	64
Figure: 4.27. Whether the record book is maintain continuously. (According to lecturers)	65
Figure: 4.28. Adequacy of physical resources	66
Figure: 4. 29. Adequacy of physical resources (According to lecturers)	67
Figure: 4. 30. Adequacy of physical resources (According to lecturers)	68
Figure: 4.31. Included a definite continuous assessment system in syllabus	69
Figure: 4.32. Ensure the competencies that required for jobs by continuous assessments	70
Figure: 4.33. Influencing continuous assessment for final result	71
Figure: 4.34. Obtaining assessors for final assessments	72
Figure: 4. 35. Whether final assessment is passed for the first time	73
Figure: 4. 36. Which time final assessment was pass	74
Figure: 4.37. Form of facing the final assessment	75
Figure: 4.38. How many times pass the examination if they have not first time passed.	77
Figure: 4.39. Whether the 1 <sup>st</sup> semester examination is first time passed	78
Figure: 4.40. Wether the 2 <sup>nd</sup> semester examination is passed first time	79
Figure: 4.41. Result of lecturers in 2011	80
Figure: 4.42. Lecturers were satisfied or not about their result	81

Figure: 4.43.Period of industrial training	82
Figure: 4.44. Whether the NVQ certificate has got or not	83

## LIST OF TABLES

Table: 4.1. Students Pass Rate in 2011 (Semester 2 Exam)	36
Table: 4.2. Whether the students are Qualified or not for final assessment	37
Table: 4.3. Whether the students are competent or not	38
Table: 4.4. Students' percentage of Competency in National Diploma in Automobile Technology	38
Table: 4.5. Students' percentage of Competence in National Diploma in Construction Technology	39
Table: 4.6. Student's percentage of Competence rate in National Diploma in Information & Communication Technology	40
Table: 4.7. Percentage of Student Competence in National Diploma in Farm machinery Technology and National Diploma in Food Technology	41
Table: 4.8. Percentage of Student Competence in National Diploma in Telecommunication Technology and National Diploma in Production Technology	42
Table: 4.9: COTs where NVQ level 5 courses were held in 2011	43
Table: 4.10. Awareness of students of NVQ	44
Table: 4.11. Students who answered correctly for Question No, 5	45
Table: 4.12. Lectures knowledge about the difference between NVQ and non NVQ courses	46
Table: 4.13.Reasons for selecting courses.	47
Table: 4.14. Course Accreditation	48
Table: 4.15. Ideas of students about teaching in English medium	49
Table: 4:16. Availability of Curriculum	51
Table: 4:17. Whether the syllabus is given to students or not given.	52
Table: 4:18. Students who had got the syllabus	52
Table: 4.19. Adequacy of staff (According to Directors)	53
Table: 4.20. Adequacy of staff (According to Students)	54
Table: 4.21. Field of academic staff who teach in NVQ Level 5 courses	55

Table: 4.22 Qualification of Academic staff.	56
Table: 4.23. Professional Qualifications of Lecturers	57
Table: 4.24. Teaching method that is followed by the lecturers	58
Table: 4.25. Whether the subject matter is grasped or not	59
Table: 4.26. Classroom materials used by lecturers	61
Table: 4.27. Availability of electronic instruments	62
Table: 4.28. Whether the record book is maintained continuously (According to students)	63
Table: 4.29. Whether the record book is maintained continuously (According to lecturers)	64
Table: 4.30. Adequacy of physical resources	65
Table: 4.31. Adequacy of physical resources (According to lecturers)	66
Table: 4.32. Completing the continuous Assessment	67
Table: 4.33. A definite continuous assessment system is included in syllabus	68
Table: 4.34. Ensure the competencies that required for jobs by continuous assessment	69
Table: 4.35. Influencing continuous assessment for final result	70
Table: 4.36. Obtaining assessors for final assessments	71
Table: 4.37. Whether the final assessment is passed for the first time	72
Table: 4.38. Which time the final assessment was passed	73
Table: 4.39. Form of facing final assessment	75
Table: 4.40. Relationship between industrial training period and result of Final Assessment	76
Table: 4.41. Whether the 1 <sup>st</sup> semester examination is first time passed	77
Table: 4.42. How many times sat for the exam if not for the first time	77
Table: 4.43. Whether the 2 <sup>nd</sup> semester examination was passed for the first time	78

Table: 4.44. Result of lecturers in 2011	79
Table: 4.45. Lecturers were satisfied or not about their results	80
Table: 4.46. Period of industrial training	82
Table: 4.47. Whether the getting or not NVQ certificates.	83

## **LIST OF ABBREVIATIONS**

COT – Colleges of Technology

DTET - Department of Technical Education & Training

NVQ – National Vocational Qualification

TVET – Technical & Vocational Education & Training

TVEC – Tertiary & Vocational Education Commission

CBT – Competency Based Training

TCs – Technical Colleges

SDP – Skills Development Project

NVQSL – National Vocational Qualifications Framework in Sri Lanka

ICT – Information & communication Technology

O/L – Ordinary Level

A/L – Advanced Level

QMS – Quality Management System

UNIVOTEC – University of Technology

ILO- International Labour Organization

UNESCO- United Nations, Educational Scientific & Cultural Organization

NITAC – National Industry Training Advisory Committee

RPL – Recognition of Prior Learning

# **CHAPTER 1**

## **INTRODUCTION**

### **1.1 Background of the study**

The Department of Technical Education and Training is the pioneer public sector organization established to implement the Technical Education in Sri Lanka, which commenced with the establishment of the Ceylon Technical College in 1893. It has 36 Technical colleges (TCs) located in different parts of the country. Nine colleges of these have been upgraded as Colleges of Technology at the end of 2009. These nine Colleges of Technology (COTs) offer diploma level courses leading to National Vocational Qualification.

Through the Skills Development Project (SDP) a new NVQ framework for Sri Lanka was established. NVQ 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 (Tertiary and Vocational Education Commission, 2008).

Therefore Department of Technical Education and Training (DTET) must implement the new NVQ system effectively and efficiently. In the past, Secretary of Vocational Training and Youth Affairs Ministry has expressed that what the matters were for lower pass rate of the NVQ level 5 courses. So researcher as an officer in the Testing and Evaluation unit intends to search the factors influencing for lower pass rate of the NVQ level 5 courses (according to 2010 - 2011 result sheets). This study is a result of above Endeavour.

### **1.2 State of the problem**

Student lower pass rate of NVQ level 5 courses in Colleges of Technology

Department of Technical Education and Training should recognize that NVQ system is functioning effectively and in an efficient manner in Technical Colleges and Colleges of Technology. According to 2010 & 2011 result sheets, NVQ level 5, Pass rate of students is lower in many NVQ level 5 courses. Therefore A study for searching reasons for lower pass rate of the courses of NVQ level 5 in COTs is a very important for getting a remedy

### **1.3 Research Question**

What are the reasons for lower pass rate of NVQ level 5 courses in Colleges of Technology?

### **1.4 Significance of the study**

Successful implementation of NVQ level system is a more important factor in reaching the mission and vision of the DTET. Vision and mission statements of DTET are mentioned as follows.

VISION:-

**To become an internationally renowned, leading technical education and training provider in the SAARC region.**

MISSION:-

**To function as a provider of high quality internationally recognized technical education and training to our valued customers nationally and internationally whilst. Being a well-structured, professionally managed department, Equipped with advance technologies and a highly motivated team of employees, attracting best students, Industry and funding agencies and contributing towards making Sri Lanka knowledge based economy.**

According to the above vision and mission DTET must become an internationally renowned leading technical education and training provider. In this context, formulating the NVQ system is the effort to reach the vision through mission. In the past Technical Education and Training sector has shown supply driven training system. In this situation there is a gap between Technical Education and Training system and industry sector .Requirements of industry sector did not fulfill by Technical Education and Training system. Likewise, DTET needs a demand driven training system instead of supply driven training system. NVQ is the demand driven training system. This is a globally recognized training system. Therefore, NVQ will be a bridge to reach the new global knowledge based economy.

Knowing factors influencing lower pass rate of NVQ level 5 courses and presentation of remedies to those factors are significant to this study among the others.

## **1.5 Objectives**

### **Overall objectives**

To analyze and make suggestions to overcome the reasons for lower pass rate of the courses of NVQ level 5 in Colleges of Technology.

### **Specific Objectives**

1. To identify the NVQSL system
2. To examine the nature of NVQ level 5 courses held in Colleges of Technology.
3. To identify the reasons for lower pass rate.
4. To suggest strategies to increase the pass rate of NVQ level 5 courses.

## **1.6 Scope and Limitation**

This study covers the major areas mentioned below.

1. NVQSL system
2. Nature of NVQ level 5 courses held in Colleges of Technology.
3. Matters influencing the pass rate of NVQ level 5 courses
4. Ways and means to strengthen the pass rate of NVQ level 5 courses.



When we concern about limitation, time limitation is very important. Because six weeks has been allocated for data gathering. But 9 Colleges of Technology are scattered throughout the country. Researcher had to gather data while doing her job.

### **1.7 Beneficiary Parties**

1. TVEC
2. DTET
3. Students
4. Directors and Lectures

## CHAPTER 2

### Literature Review

This review has presented according to books and journals of local and international studies, which fosters above study. In this research, Literature review is concerned with the topics mentioned below.

#### 2.1 What is Technical and vocational Education and Training?

Technical and vocational education and training (TVET) refers to education and training that prepares persons for gainful employment (Finch and Crunkilton 1999). In other words, TVET refers to deliberate interventions to bring about learning which would make people more productive (or simply adequately productive) in designated areas of economic activity (e.g., economic sectors, occupations, specific work tasks). TVET has the potential to enhance human capabilities and enlarge peoples' choices. The benefits of TVET need to be more equitably distributed between men and women, and between rural and urban areas.

The beginning of TVET is difficult to trace as it connotes skills and competencies which has been embedded in surplus of other histories. The perception of the origin of TVET by many is in diverse ways. However, general education and training began in pre-history with the transmission of knowledge and culture from one generation to the next. The use of tools, beginning with those made from stones, evolved as humans evolved. In the pre-historic hunting and gathering society, skills were passed from parent to child as members of small, usually related, migratory groups.

The transition from this stage to the settled cultivation of crops marks the beginnings of civilization—and with it recorded history. The education and training that occurred is best embodied in the **Chinese proverb: 'Give a man a fish and he will eat for a day. Teach him how to fish and he will eat for a lifetime.'** The World Bank, International Labour Organization (ILO), United Nations Educational, Scientific and Cultural Organization (UNESCO), and other organizations have recently shown drive towards actively recognizing anew the role of TVET. However, UNESCO who is at the forefront of TVET promotion, had the following objectives established at the Seoul Congress (UNESCO, 1999):

1. To provide TVET for all;
2. To orient TVET for sustainable development;
3. To strengthen TVET as an integral component of lifelong learning.

One of the key goals of the Education for All (EFA) Framework for Action adopted in Dakar, Senegal, in 2000 (UNESCO, 2000) stipulates that the learning needs of all youth and adults should be met through access to appropriate learning and life-skills programs. Since this is basically what TVET does, the linkage between the two thrusts already exists, but must be strengthened and broadened in the future.

TVET can take place either in formal schools (i.e. kindergarten through to grade 12 or 13), or increasingly in post-secondary community and/or technical colleges, or informally by means of training at the workplace and increasingly by distance media. TVET prepares learners for specific jobs or types of work, often including practical and/or procedural activities. The aim of TVET is to enable learners to meet needs of employers for qualified labour and/or own needs related to production of goods and services. Skills training in general denotes development of qualifications in the same line, but with a more limited scope and volume of training, often focusing on performance of one task (e.g. operation of a specific machine) or a limited set of tasks (e.g. different types of welding). At a UNESCO Expert Meeting held in Bonn, Germany, 25 to 28 October 2004, approaches and practices were presented to illustrate the contribution that TVET had made towards a more sustainable future. Learning for work, citizenship and a sustainable future is a joint responsibility of education, of the world of work, and of a variety of stakeholders in the formal and informal socio-economic environment. It was contended that since education is considered the key to effective development strategies, technical and vocational education and training (TVET) must be the master key that can alleviate poverty, promote peace, conserve the environment, improve the quality of life for all and help achieve sustainable development. With this, TVET has to re-orient its agenda for action so as to continually provide scientific and technical skills in relevant and responsive programs, and consequentially develop a new generation of human resources. In general context, Sustainable Development combines three principal aspects:

**Economic:** An economically sustainable system must be able to produce goods and services on a continuing basis, and to avoid sectoral imbalances between such areas as agricultural and industrial production.

**Environmental:** An environmentally sustainable system must maintain a stable resource base, avoiding over-exploitation of renewable resource systems, and depleting nonrenewable resources only to the extent to which adequate substitutes can be developed. The concept includes maintenance of ecosystem functions such as biodiversity and atmospheric stability, thus addressing resources that are traditionally not considered as economic resources.

**Social:** A socially sustainable system must achieve distributional equity, adequate provision of social services including health and education, gender equity, as well as political accountability and participation to promote active citizenship. The overriding objective is quality of life.

## **2.2 Requirement of Department of Technical Education and Training**

### **Vision**

Department of Technical Education and Training to be a demand driven cost efficient center of excellence in creating world class quality technical competent personnel through the programmers and activities of the Technical College net work meeting with the changing socio economic needs of the country.

## **Mission**

To strive to emerge as a forefront sustainable organization in managing training programs of quality and relevance promoting and facilitating continuous learning work ethics and values and working in partnership with industry, business and other organization through various strategies to cater to changing socio economic needs of the country. (Prospectus 2002 /2003)

According to above vision and mission Department of Technical Education and Training has ensured requirements of creating world class quality technical competent personnel for technical education and training sector. In this effort, introducing new NVQ system is more important process for Technical Education and Training sector.

## **2.3 What is the NVQ?**

National vocational qualification (NVQs) are work related, competence- based qualifications. They reflect the skills and knowledge needed to do a job effectively, and show that a candidate is competent in the area of work the NVQ framework represents.

NVQs are based on national occupational standards. These standards are statements of performance that describe what competent people in a particular occupation are expected to be able to do. They cover all the main aspects of an occupation, including current best practice, the ability to adapt to future requirements and the knowledge and understanding that underpin competent performance.

Within reason, NVQs do not have to be completed in a specified amount of time. They can be taken by full- time employees or by school and college students with a work placement or part time job that enables them to develop the appropriate skills. There are no age limits and no special entry requirements.

(While NVQs technically stipulate no time limit, within reason, it is worth bearing in mind that setting time targets and limits is usually an important part of achieving goals of any sort.

It's not helpful to drift aimlessly towards qualification 'one day' or 'sometime in the future' which under such vague circumstances often never actually comes. Also it's helpful to avoid potential confusion for candidate and assessment alike resulting from NVQ job 'standards' being reviewed and changed prior to completion, which they are apt to do if qualification achievement takes an inordinately long time. Best idea is to set and agree clear achievable and staged time targets.

## **2.4 Analysis of NVQSL and duties of TVEC**

The Sri Lankan National Vocational Qualification Framework (NVQSL) has been established to support the efforts in enhancing the development of an internationally competitive workforce in Sri Lanka. The framework is one of the key elements in unifying Technical and Vocational Education (TVET). There will be national competency standards set in consultation with the industry, national quality standards for teaching and assessment using a competency based approach, and national certification of learners and workers. The entire system will be internationally benchmarked.

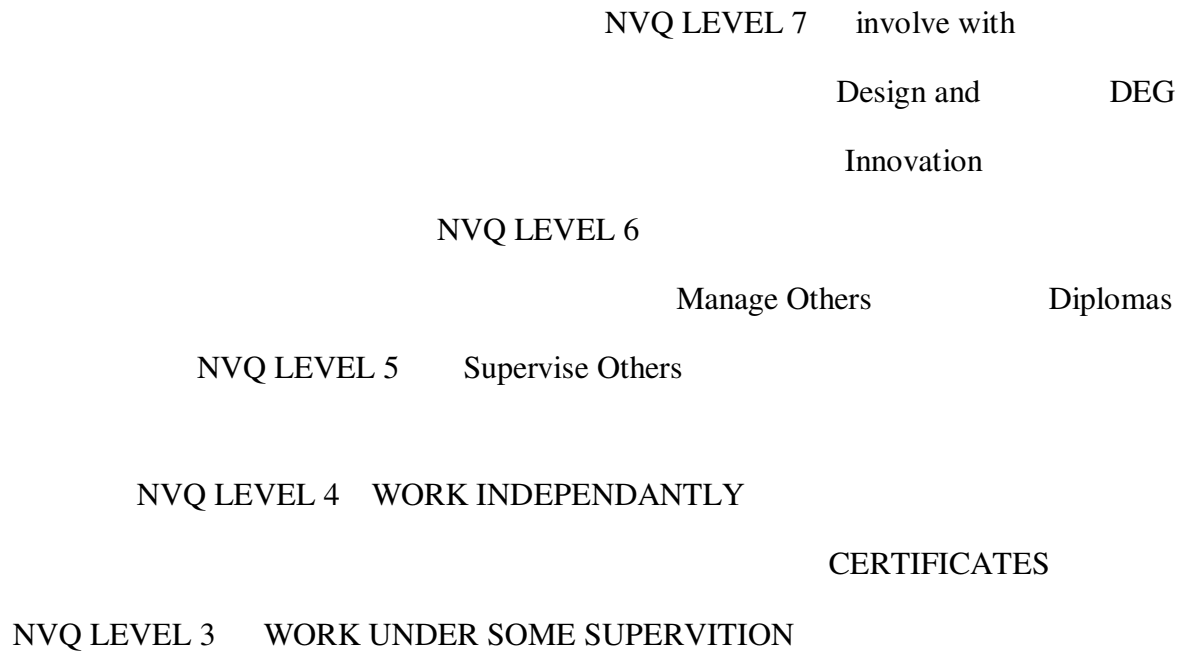
The NVQSL provides the opportunity for sustainable, strategic solutions for national training needs as well as for the employment achieve national and international recognition for qualifications, knowledge, skills and attitudes of Sri Lankans in an increasingly globalised and competitive world. This will enhance the mobility of Sri Lankan workers nationally and internationally. The internationally benchmarked policies and processes adopted by the Tertiary and Vocational Education Commission (TVEC) shall enhance credibility to credentials awarded in Sri Lanka. The government of Sri Lanka is committed to ensure human resources development in keeping with the national and international labour market demand and recognize the importance of acquisition of competencies. The National Vocational Qualifications systems that is based on the certification of competencies was developed to be implemented in the Sri Lankan Technical and vocational Education and training sector with the assistance of Asian Development Bank funded skills Development Project (SDP) and the Technical education Development Project (TEDP).

The expectation sought from the establishment of a National Vocational Qualifications framework relates to increasing the relevance and quality of Technical and Vocational Education and Training (TVET) specifically there shall be:

1. Unified qualification framework which is recognized nationally and understood internationally
2. Strengthened linkages with industry' commerce and other external stakeholders.
3. Increased responsiveness to industry competency needs.
4. Convenient and flexible access for potential trainees.
5. More proactive education and training strategies.
6. Improved international linkages and recognition.
7. Collaboration and rationalization among the training agencies
8. Enhanced quality, relevance, performance, effectiveness, efficiency and transparency.
9. An education and training culture of responsiveness and excellence.

Developing the NVQSL shall ensure that all current and newly emerging technical and vocational education and training (TVET) activities are well coordinated. Competency Based Training (CBT) curricula and appropriate teaching, learning and assessment materials shall be available in the framework, together with requirements for registration and accreditation for training providers and courses respectively. The whole system shall be underpinned on acquisition of competencies with an emphasis on quality.

## NATIONAL VOCATIONAL QULIFICATION LEVELS



**Figure 2. 1: National Vocational Qualification Levels**

### National Qualifications

The term “National” will be used for endorsed qualifications. National qualifications are available from registered training providers, who offer accredited courses. “National” certificates shall not be issued for new courses without the approval of the TVEC. Ongoing courses with “National” certificates and “National” diplomas will continue until such time the NVQSL is fully established.

National qualifications shall have internationally recognized characteristics. They shall:

1. Have a clear purpose.
2. Be internally coherent.
3. Recognize broad transferable and generic skills as well as specialized industry and professional skills.
4. Be internationally credible.
5. Have clear indications of entry requirements wherever applicable.
6. Specify quality assurance requirements for training delivery and assessment (unified and impartial).
7. Provide an indication of the relationship to other qualifications wherever applicable.
8. Specify clearly the competencies to be achieved for the award of the qualification.

## **TYPES OF QUALIFICATION**

There are four types of NVQ qualifications.

- a. National Certificate
- b. National Diploma
- c. Record of Achievement
- d. Bachelors" degree

### **a. National Certificate**

National Certificates are awarded to those who are fully competent in a particular occupation at NVQ levels 1 to 4. The "National Certificate" has a listing of units of competencies achieved on the reverse side of the certificate. This will be helpful information for employers or for trainees seeking further studies. All certificates carry provision for the logo of the training provider or accredited establishment along with the logo of the TVEC and National emblem

The NVQ level of the certificate is dependent on the level(s) of the unit(s) of competency in a qualification package. An occupation may have one or more qualification packages.

National Certificates are awarded jointly by TVEC and accredited training providers. All data of NVQ certificate holders are stored at the TVEC data base

### **b. National Diploma**

National Diplomas are awarded to those who are competent in a particular technology area at NVQ level 5 or 6. The units of competencies comprising a "National Diploma" are listed on the reverse side of the certificate. All certificates carry provision for the logo of the training provider or accredited establishment along with the logo of the TVEC and National emblem.

Competencies for National Diplomas are in two categories, viz. Core competencies and Elective competencies. Core competencies are compulsory while elective competencies can be selected by the trainee to fulfill the credit requirement for the qualification. NVQ level 5 needs 60 credits whereas level 6 needs 120 credits.

The details of the units of competence forming a qualification can be found in the corresponding competency standard.

Approval to conduct NVQ Level 5 and 6 programs are awarded to training institutions by TVEC subject to following conditions

- i The curricula of the courses have been approved by TVEC
- ii The equipment needed for training are in required order and in required quality.
- iii The training institutions have qualified instructors.
- iv The training institutes have the necessary classroom and laboratory facilities.
- v The training institutes possess adequate financial, physical and human resources to conduct NVQ Level 5 and 6 courses.
- vi The training institutes have a proven track record over a period acceptable to TVEC.

National Diplomas are awarded jointly by TVEC and approved training providers. All data of NVQ certificate holders are stored at the TVEC data base.



### **c. Record of Achievement**

Records of Achievements are awarded for those who demonstrate competence in some but not all of the units of competence forming a National Certificate or National Diploma. Awarding body for Record of Achievements is the respective training provider who should be eligible to conduct NVQ courses. However, necessary data shall be transmitted and stored at the TVEC database.

Records of Achievements are useful as an individual reference for learners and employees who have yet to attain all the requirements to be awarded a National qualification.

Criteria for awarding National Certificates and National Diplomas.

1. Training institution should be accredited with an approved QMS.
2. Assessments should be conducted according to the National Competency Standard of the NVQ framework
3. The certificates should be printed under the guidance of the TVEC
4. The certificates should contain the signature of the Director General of the TVEC and a signature of a director or CEO of the training provider.

### **d. Bachelors' degree**

Bachelors' degree at NVQ level 7 is awarded by UNIVOTEC. Development of curriculum, conduct of assessments and awarding certificates are under the purview of UNIVOTEC.

Admission, accreditation and Quality Assurance Council of the UNIVOTEC is chaired by the DG of the TVEC.

## **Duties of TVEC**

The national lead body is the Tertiary and Vocational Education Commission (TVEC), which is the regulatory body for all aspects of implementation of TVET in Sri Lanka. The Sri Lankan National Vocational Qualifications Framework (NVQSL) has been established to support the efforts in enhancing the development of an internationally competitive workforce in Sri Lanka. The framework is one of the key elements in unifying Technical and Vocational Education and Training (TVET). There will be national competency standards set in consultation with the industry, national quality standards for teaching and assessment using a competency-based approach, and national certification of learners and workers. The entire system will be internationally benchmarked.

A operations manual has been endorsed by the Tertiary and Vocational Education Commission (TVEC) in consultation with the Ministry of Vocational and Technical Training, National Apprentice and Industrial Training Authority (NAITA), Vocational Training Authority of Sri Lanka (VTA), Department of Technical Education and Training (DTET), National Youth Services Council (NYSC) and University of Vocational Technology (UNIVOTEC).

The Manual outlines the agreed policies and processes for the implementation of all components of the National Vocational Qualifications in Sri Lanka (NVQSL). The manual states how national vocational qualifications are established in order to meet Sri Lankans' occupational requirements, how training providers are to prepare courses so that the trainee will meet the industry specified competencies and how assessment and certification will be conducted.

Quality assurance is an important feature in the implementation of the NVQ system and training providers will establish their own quality management systems acceptable to the TVEC. Training providers shall be registered, accredited and audited by the TVEC.

The Asian Development Bank has supported the introduction of the National Vocational Qualifications Framework initially through the Skills Development Project and then through the Technical Education Development Project. International good practices have been studied and a model for a unified national system for qualifications has been developed for Sri Lanka. The Framework and its components, in particular the national competency standards identified by industry, are suitable for a formal benchmarking with vocational training systems in other countries.

The TVEC shall be working with the industry and countries which are major destinations for overseas workers, in order to ensure mutual recognition of competency standards and national vocational qualifications introduced in Sri Lanka

This manual will assist all stakeholders to understand and implement the new national vocational qualifications framework. The manual will be used by officers in the industry and public, private and nongovernmental training agencies participating in TVET sector. It will be a valuable reference for those who wish to collaborate with the new system. It should also be useful to industry and professional groups wishing to collaborate with the Tertiary and Vocational Education Commission (TVEC) for the future development of human resources in Sri Lanka.

The TVEC is the national authority for the implementation of NVQSL, and the following are the operational functions supporting the NVQSL framework.

### **Policy development, communications and research on NVQ**

1. Management of national communication strategies.
  2. Monitoring the implementation of the NVQSL.
  3. Development of policies.
  4. Observe national and international NVQ trends.
  5. Promote international recognition for NVQSL.
  6. Assess the impact of the NVQSL towards national development.
  7. Liaise with industry and professional bodies to promote workplace assessment and certification.
1. Develop strategic partnership with national trade associations.
  2. Respond to enquiries regarding NVQSL
  3. Inform NAITA for Development of competency standards.

### **Endorsement**

1. Endorsement of competency standards.
2. Endorsement of CBT curricula.
3. Endorsement of assessment resources.

### **Registration**

1. Registration of training providers.
2. Promote adoption of quality management system by training providers.
3. Maintenance of registered status of training providers.
4. Gazette the list of registered training providers annually

### **Quality Management System**

1. Certification of the adequacy of the scope of the QMS of training providers

### **Accreditation**

1. Accreditation of courses leading to National Vocational Qualifications.
2. Accreditation of courses designed to meet the competencies of one or more units, which are not leading to a particular NVQ level.
3. Accreditation of agencies for workplace assessment.
4. Accreditation of agencies to carry out recognition of prior learning.

### **Monitoring and Audit**

1. Surveillance monitoring of all registrations and accreditations.
2. Monitoring CBT implementation and consistency of assessment.
3. Unscheduled audits.
4. Maintenance of registration and accreditation.
5. Response to issues from trainees and stakeholders.

### **Assessment Consistency**

1. Audit of CBT assessment
2. Maintain the consistency of competency based assessment.
3. Appoint assessors
4. Maintain the register of assessors
5. Monitor accredited providers and workplace establishments.
6. Periodic review of assessors by TVEC.
7. Review and update training programs for assessors.

### **Certification**

1. Maintain a database for NVQ certificate holders
2. Allocate secure certificate numbers
3. Ensure that the assessment results are being submitted regularly and verify the validity.
4. Manage the implementation arrangements for all endorsed qualifications.
5. Authorize the award of National Vocational Qualifications and record of achievements

### **Social Marketing, Publications, Website and linkages with the stakeholders**

1. Disseminate NVQ information and regulatory documents to stakeholders.
2. Publish endorsed materials.
3. Keep website data updated.
4. The TVEC shall convene a NVQ steering group for the operations of NVQSL.
5. The TVEC shall convene periodic review meetings with the accredited Training providers for the operation of NVQSL.
6. The TVEC shall link with industry and professional groups/ bodies to secure their support for further development of NVQSL.

### 2.4.1 NATIONAL COMPETENCY STANDARDS

Competency is the application of knowledge and skills relative to an industry standard of performance. The concept of competency focuses on what is expected of an employee in the workplace, rather than on the learning process, and embodies the ability to transfer and apply skills and knowledge to different situations and environments. Therefore, in Competency-based training (CBT) emphasis is placed on what a person can do in the workplace as a result of completing a program of training.

Competency standards are industry-determined specifications of performance that set out the skills, knowledge and attitudes required to operate effectively in a specific industry or profession. Competency standards are made up of units of competency, which are themselves made up of elements of competency, together with performance criteria, a range of variables, and an evidence guide. Competency standards are an endorsed component of a training package.

For a person to be assessed competent they need to demonstrate the ability to perform tasks and duties to the standard expected in employment. CBT focuses on the development of the skills, knowledge and attitudes required to achieve those competency standards.

**One of the primary features of CBT is that each learner's achievement is measured against the competency standards rather than against the achievement of other learners.**

The competency standards are a basis for curriculum development, the preparation of teaching, learning and assessment materials, as well as training plans.

The framework shall progressively include new qualifications based on national competency standards. It is envisaged that over time, many areas of technical and vocational education and training shall be covered by national competency standards.

The competency standards approach allows continuous review of national vocational qualifications and shall together with the international benchmarking bring coherence to competency standards-setting at all levels.

The intellectual property contained in the national competency standards and the NVQSL is copyright to the Government of the Democratic Socialist Republic of Sri Lanka and shall be available through the Tertiary and Vocational Education Commission (TVEC).

TVEC shall make available a full listing of all accredited courses with their level and purpose for the information of learners and employers. This ensures comprehensive coverage of a sector and coherent identification of competency standards / qualifications including a sensible match adjusted to the labour market.

Guidelines are available to advice the developers of competency standards and qualifications in order to outline technical requirements for the format and content of the national vocational qualifications. (National Vocational Qualifications Framework of Sri Lanka, Operation manual, October, 2009))

#### 1. Criteria for Determining Qualifications of levels 5

##### **NVQ Level 5 Diploma**

The minimum number of credits required for the NVQ level 5 diploma is 60 of which at least 40 credits must be at level 5 or above and the remaining (up to 20) credits at level 3 or above.

## **2. Format of the National Competency Standard**

The body of the Competency Standard document consists of three parts; the key information section, list of units of competency and the unit descriptors.

### **2.4.2 CBT CURRICULA**

#### **2.4.2.1. POLICY**

NVQSL shall ensure that training and competency assessments are based upon standards required by industry. The policy for developing the competence based training curricula is based on the use of national Competency Standards. The functional map developed in the competency standard development process shall be used when the curriculum development process is initiated.

To ensure a responsive and high quality Technical and Vocational Education and Training (TVET) system in Sri Lanka, the system is committed to developing and maintaining a Competency Based Training (CBT) system that will be based upon the principles of:

- i. Learner centered training
- ii. National Competency standards to specify the competencies, knowledge and attitudes required by the industry
- iii. Direct industry involvement in the TVET system
- iv. Competency based assessment
- v. Formal endorsement of Competency standards which lead to national qualifications
- vi. Endorsement of curricular which leads to consistent training delivery
- vii. A quality assured system for registering training providers
- viii. A quality assured system for accrediting national courses.
- ix. A quality assured system for assessment of competencies in the workplace.
- x. Flexible delivery of training.
- xi. Training to meet industry needs.
- xii. Recognition of competencies acquired through learning or work experience.
- xiii. Linking training and learning to the workplace.

#### **2.4.2.2. Development of Curricula for Competency Based Training**

##### **Introduction**

A Curriculum is a “Plan for Training” designed to provide learning experiences.

A CBT curriculum, in particular, is an integral component in a unified TVET system.

The University of Vocational Technology (UNIVOTEC) is the lead agency responsible for the development of competency based national curricula, for the unified national TVET system.

UNIVOTEC shall develop on the instructions of the TVEC the national CBT curricula and submit through TVEC to NAITA for validation.

The TVEC is the national authority of endorsing the curricula.

##### **The Basis of CBT Curricula**

The “Competency Standard” of any given industry sector/occupation describes the skills, knowledge and attitudes that a competent worker in the sector /occupation shall demonstrate at a work place.

Competency standards focus on what is expected from a worker in the workplace rather than on the learning process

Hence, in the case of development of curricula for the certificate levels (NVQ 1 to 4) competency units specified in the Competency standards are transformed into “tasks” that the learner has to perform during learning

and in the case of development of curricula for diploma levels (NVQ 5 & 6 ) competency units specified in the units are transformed into “learning outcomes” in the CBT curricula.

Therefore the national competency standards shall be the basis on which the national CBT curricula are developed.

### **Learning Modules**

For convenience of learning, tasks or learning outcomes specified in CBT curricula are sequenced into distinctly identifiable independent building blocks, officially referred to as “Modules”

### **Concept of CBT curricula**

The CBT curriculum shall necessarily satisfy the following requirements, which adequately describe the dimensions of “Competency”

i. **Task Handling** - The requirement to perform individual tasks to the required performance standards and output standards.

ii. **Task Management** - The process of managing a task through its life cycle, including planning, testing, tracking and reporting. Effective task management includes managing all aspects of a task, including its status, priority, time, human and financial resources assignments, recurrences, notifications and so on.

iii. **Contingency management** - The capacity for flexibility in varying responses and attitudes to meet the needs of different situations.

iv. **Job / role / work environment handling** - The requirement to deal with responsibilities and expectations of the work environment including interacting appropriately with others in the workplace

v. **Transfer skills** - Competencies in performance of a particular job which can be used in the performance of another job.

CBT curriculum shall, encompass the essential aspects of “Competency” as outlined in the national competency standards.

#### **2.4.2.4. CBT Curriculum Documents**

##### **Curriculum documents for NVQ levels 5 & 6**

Competency based curricula for NVQ levels 5 & 6 have only one document that is the curriculum outline. The curriculum outline consists of module descriptors prepared for modules. The module descriptor has the following components:

Module Title

Module Code

Module Type

Relevant Units of Competencies

Pre-Requisites

Module Aim(s)

Learning Outcomes

Learning Content / Topics

Resource Requirement

Prescribed and Recommended References

Suggested Teaching – Learning Activities

Assessment and Weightings

Duration

#### **2.4.2.5. Assessment Guides in CBT Curriculum**

##### **Level 5 and 6 Curricula:**

For NVQ levels 5 and 6 guidance is provided in the module descriptors as to the expected learning outcomes, modes of assessments and their weightings. Formative and summative assessments are conducted based on the learning outcomes of the modules. DTET will centrally manage course based formative and summative assessments for Colleges of Technology (COTs).

#### **2.4.2.6. Industrial Training Phase**

The industrial training phase that follows immediately after a satisfactory institutional training phase provides ample opportunities for the trainee to develop competencies in contingency management, job/role environment handling and transfer skills to different situations. Besides, it exposes the trainee to real work place environment, enabling him/her to acquire and enhance industry specific performance standards, in line with CBT concepts.

#### **2.4.2.7. Revision of Curricula**

CBT Curriculum once developed shall first run on a pilot (trial) basis, during which period it is subjected to continuous improvement through a feedback process.

National CBT Curricula shall undergo periodic revisions in order to comply with requirements of the National competency Standards.

#### **2.4.2.8. CBT Curriculum Validation and Endorsement**

NAITA is delegated to validate the curriculum developed by the University of Vocational Technology (UNIVOTEC) or any other. The following process shall be followed:

I. Draft “curriculum outline document” shall be submitted to NAITA through TVEC.

ii. TVEC shall officially request NAITA to initiate the validation process.

iii. NAITA shall convene the NITAC Curriculum validation meetings and coordinate the activities.

iv. The Curriculum developers shall assist the NITACs explaining the process, procedures and if necessary the contents of the curriculum.

v. The NITAC, shall consider the following for validation.

- The Curriculum is based on a “Functional Map /Competency profile” derived from competency standards if any.
- Profiles of the curriculum developers who participated at the workshops and curriculum writers.
- Curriculum format.
- Evidence of matching the NVQ with the curriculum or units of qualifications with the curriculum.

vi. The validated curriculum shall be submitted to TVEC for endorsement together with the validation recommendations of NITAC. If the curriculum does not meet the requirement for validation it shall be returned to UNIVOTEC with observations.

vii. TVEC will take steps for printing of Competency Standards and Curricula.

viii. Development and translation of Competency Standards and course curricula/teaching guide/learner guide will be done through budgetary allocations by NAITA and UNIVOTEC respectively. (National Vocational Qualifications Framework of Sri Lanka, Operation manual, October, 2009))

### **2.4.3 ASSESSMENT**

For Levels 5 and 6 qualifications two stages of assessment are employed. Modular based (Formative and Summative) assessments are conducted for the assessment of learning outcomes as specified in the curricula. Whether the trainee is competent or not yet competent shall be decided through a competency based assessment with respect to all units of competence that constitutes the qualification which shall be conducted by a registered / licensed assessor. Records of the continuous assessments and the summative assessment conducted shall form part of the evidence used in deciding the competence of the trainee. A viva voce conducted by an assessment panel nominated by training provider shall be a mandatory part of the CBA. The assessment panel shall consist of three members with at least one member representing the industry which deals with the particular area of technology. The final outcome of the assessment shall be determined by the assessment panel.

#### **2.4.3.1. Overview of the assessment system**

##### **Competency Based Assessment for Awarding the Qualification**

A competency based assessment system must be based upon clear and unambiguous benchmarks. These benchmarks are supplied by the National Competency Standards which specify the skills, knowledge and attitudes to be applied in various industry sectors / occupations to the minimum standard of performance expected by the industry.

Assessor/s must collect sufficient evidence of competence from candidates in order to be able to reach an assessment decision. Sufficiency can be defined as evidence which has demonstrated that the candidate can:

- Perform task skills.
- Perform task management skills.
- Contingency management skills.
- Perform according to specific workplace environments.
- Transfer skills to different situations.



The assessment system must enable assessors to document that the evidence presented for assessment really is the work of the candidate.

It is necessary for assessors to validate the current evidence included in the portfolio ensuring the competency of the candidate.

The system must be cost effective for both the establishments conducting the assessments and for candidates.

Assessment is based upon agreed benchmarks of skill and knowledge. These benchmarks are provided by the national competency standards which an industry agreed document is specifying the skills, knowledge and attitudes which are applied to various industry sectors / occupations.

Criterion referenced assessment assumes that the assessment decision is based upon a collection of evidence gathered over a period of time (Evidence based judgment) rather than on one event, such as a test or exam. A combination of formative and summative assessment shall be used in order to reach an assessment decision.

Evidence based judgment involves assessors using assessment materials consisting of:

I.Outlines for candidates to guide them in collecting their evidence

ii. Self Assessment guide

iii. Test items and specifications

iv. Instructions to candidates

v. Assessment guides for assessors

vi. Record keeping instruments for recording the formative and summative assessments results.

The assessment system shall be flexible enough to consider:

I.Socio-economic background

ii. Religion

iii. Ethnicity

iv. Gender

v. Language

This may involve making reasonable adjustments to assessment techniques for individual candidates as long as the national competency standards are not compromised.

Assessment shall take into account the limitations of industry in relation to administration of assessment such as:

i.Availability of assessors.

ii. Workplace policies and procedures.

iii. The need for specialist tools, equipment and materials.

iv. Time constraints.

v. The inability for some candidates to gather direct workplace evidence of competence.

vi. Candidates from geographically isolated locations.

In the preparation of assessment materials the needs of the intended target group shall be taken into account, especially in the areas of language, literacy and numeracy. Any technical language used shall reflect the technical language of the industry.

Assessment materials shall be produced for each unit of national competency standards.

The success will be decided based on competency in all the units clustering the package of the qualification in case of Level 1 – 4 and the required number of credits for levels 5 and 6.

#### 2.4.3.1.3 Principles of Competency Based Assessment

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.

Usually a number of pieces of evidence are collected and submitted by a candidate to demonstrate how he / she can apply the skill, knowledge and attitudes. This is sometimes referred to as a “portfolio” and may include one or more of the following.

- i. Trainees record book.
- ii. Test and exam results.
- iii. Models.
- iv. Testimonials from work supervisors.
- v. Evidence of successful completion of training courses.
- vi. Verified work experience.
- vii. Skills demonstrations.
- viii. The results of direct observation by an assessor.
- ix. Project reports, assignments carried out.
- x. Answers to written or oral questions.

In competency-based assessment candidates are generally assessed as competent or not yet competent. Results are not expressed as a percentile, a grade or a score.

The four guiding principles of competency-based assessment are validity, reliability, fairness and flexibility.

An assessment process is said to be **valid** when the assessment measures only the skills, knowledge and attitudes identified in the national competency standard.

An assessment process is **reliable** when there is consistency in results between assessors. That is, when two or more assessors give the same result based upon the same evidence.

**Fairness** refers to the transparency of the assessment system. Candidates shall be aware of how they shall be assessed, when and by whom and what the national competency standards are and what they will be assessed against.

**Flexibility** refers to reasonable adjustments in the administration of the assessment process.

Formative assessment is an on-going (continuous) assessment. They are the pieces of evidence a candidate collects over a period of time and included in the portfolio described earlier.

Summative assessment may be a decision of an assessor based upon a judgment of the formative assessment. Summative assessment refers to an assessment conducted collectively at the end of a unit or set of units. This can be administered through the decision of an assessor based upon a judgment of;

- i. Evidence through documented formative assessment.

- ii. Through summative assessment demonstrated at a formal testing.
- iii. A combination of the above.

In a competency based assessment system it is the combination of formative and summative assessment that provides the overall and final assessment result.

#### **2.4.3.1.4 Practical Aspects on Conduct of Assessments**

##### **Selecting the national assessors**

Trainees are assessed by assessors registered in the TVEC for the respective occupation (level 1 - 4) or field of study (level 5 & 6), who had no involvement in the training process of the trainees to be assessed. Institutions shall select two registered assessors; one acting as the assessor and the other as the verifier. Both assessor and verifier shall be physically present for assessment of NVQ level 4 and above and whereas for assessments for NVQ level 3 and below, the verifier may check the assessment of assessor through documentary evidence and certify. Accredited private sector institutions shall obtain the approval of the TVEC for the selected assessors. The NVQ level 5 and 6 qualifications may require the appointment of additional specialist assessors for particular areas.

##### **Planning ahead for the national assessment**

Single event competency based assessments for the award of NVQ Diplomas, conducted at the end of the courses, cannot be fair, valid or reliable; nor practical. It is essential that for NVQ level 5 and 6 training programmes, the assessors be selected early so that assessment can be carefully planned to take place periodically throughout the training programme. Assessments that need to take place in specific off-site situations will need to be carefully scheduled to fit within the course delivery.

##### **The Pre-assessment visit**

A pre-assessment planning meeting shall be held with all the selected assessors in the first weeks of the course so that dates for assessment events can be scheduled and required tools, equipment and facilities (on and off-site) identified.

##### **The final summative assessment events**

For programs which involve off-site training as well as assessment, there could consequently be several summative assessment events. It is also possible that for some programs, students may not achieve all the competencies at the first assessment and further assessments may be necessary. This can be arranged on subsequent visits from the assessors.

##### **Results to the TVEC**

The assessors will submit the results of their assessment to the institution for sending on to the TVEC. Summary of the assessments conducted will be prepared using the prescribed format and transmitted to the institution's head office, or in the case of private institutions, to the TVEC.

##### **Awarding the National Vocational Qualifications**

National Vocational Qualifications are awarded through the TVEC based on submitted results. Institutions are provided with a template for the printing of a Record of Achievement for students who are successful in some but not all units in NVQ. All results are remitted to the TVEC national database.

#### **2.4.3 1.5. 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.

#### **2.4.3.9 RE-ASSESSMENT AND APPEAL ACCESS**

If a candidate is found not yet competent in one or more of the units, an immediate feedback on the assessment results shall be given to the candidate with the specific areas on which he/she need further improvements, together with time lines for possible reassessment.

Candidates shall be informed of their right to appeal when they enter the process. The right to appeal is as follows:

i. In case of a disagreement on the assessment result it shall be recorded in the candidate's competency based assessment record book with due signatures of the candidate and the assessor/s.

ii. Appeal shall be forwarded in writing to the person in charge of Examinations/assessments with a copy to the Director General (DG) of TVEC

iii The respective organization verifies the assessment record with a representative of the DG TVEC.

iv. Based on the verification, the respective organization shall inform the candidate about unsuccessfulness or otherwise, and inform the candidate of the right to re-assessment with another assessor.

Appeals must be lodged within two weeks from the date of release of assessment results.

### **Assessment Fees in Case of an Appeal**

There shall be an appeal fee which is to be decided by the DG TVEC. On scrutiny if the assessment process is found faulty the candidates appeal fee shall be refunded. The institution should arrange the trainee to be reassessed with no fees charged.

Funding for assessment shall be arranged by the respective organization / institution responsible for the conduct of the assessment. This shall apply to continuous assessments, summative assessments and competency based assessments.

(National Vocational Qualifications Framework of Sri Lanka, Operation manual, October, 2009))

### **2.4.4 Award of qualification**

Accredited training providers and establishments are authorized to award national qualifications jointly with TVEC. The certification of national qualifications shall be maintained in a central database at the TVEC. This will facilitate ready verification of the authenticity of qualifications.

The national certificate will carry the logo of the Democratic Socialist Republic of Sri Lanka, logo of TVEC together with the logo of the respective training agency. The government of Sri Lanka will promote the NVQSL through benchmarking and official communication with relevant international agencies.

#### **2.4.4.1 PROCESS FOR AWARDING NVQ QUALIFICATIONS**

TVEC should receive accurate assessment data from approved training providers for printing of NVQ certificates. These data should be scrutinized by Director (NVQ) before they are transferred to the certificate printing room for printing of NVQ certificates. Accurate details of name, National Identity Card (NIC) number, qualification code and effective date of the NVQ certificate are critical. TVEC shall not proceed to issue NVQ certificates unless above information is provided. NIC number is the key data for traceability in future. However Passport number is accepted in place of NIC number for foreign students. (National Vocational Qualifications Framework of Sri Lanka, Operation manual, October, 2009))

### **2.4.5 Quality Management System**

At the time of registration, or at least during the first year of operation, there must be in place a coherent quality management system within the institution, of policies and procedures, with mechanisms for evaluation that ensure the continued relevance, appropriateness and effectiveness of the education and training services offered. This QMS must be in place before any course accreditation applications for the NVQ 5 and 6 qualifications can be lodged with the TVEC.

### **2.4.6 Registration of Institutions**

All TVET institutions are required to meet the standard specified by the TVEC to achieve institutional registration to enter the TVET education and training market. They need to be properly established and organized with the explicit intention of offering education and training services. Minimum standards are specified in the Act.

#### **2.4.6.1 Registration of TVET Institutions**

**The Training provider registration policy of the TVEC is:**

- i. Strictly adhere to the registration process defined by the Tertiary and Vocational Education Act, No. 20 of 1990 and subsequent amendment to the Act.
- ii. Ensure that no person shall, establish, manage, run or control any institute for the provision of tertiary education and / or vocational education without being registered under the Tertiary and Vocational Education Act, No. 20 of 1990.
- iii. Implement the provisions in the development plan published in the “Gazette of The Democratic Socialist Republic of Sri Lanka No. 887/8 – Thursday, September 07, 1995”, on the categories of persons and establishments providing tertiary education and / or vocational education as the case may be, for the purpose of registration.
- iv. Process all applications for registration and submit a report with a recommendation to the Commission from the Director General for review and approval based on the following:
  - a The suitability of the institute including the facilities available, and the adequacy of the staff of the institute.
  - b The ability of the training institution to adequately provide tertiary education and / or vocational education.
  - c The training institution’ s conformity with the development plans.
- i. The Commission shall register such institute, under such name and style.
- ii. The Director General shall periodically publish in the Gazette, the list of the institutes registered and other particulars related to those institutes as prescribed.
- iii. Periodically review the progress of the registered institutions and re-register an institution prior to the expiry of the registration.
- iv. Ensure the training provider has established a “Quality Management System” acceptable to the TVEC. (National Vocational Qualification Qualifications Framework of Sri Lanka, Operation manual, October, 2009))

#### **2.4.7 Accreditation of courses**

To obtain accreditation for a course a training institution needs to satisfy certain essential requirements. These include the ability/capability of the institution to deliver the training to a satisfactory level of quality and availability of resources needed.

The title of the course should be appropriate and should reflect the content and outcome correctly. The outcomes should be clear and meet the requirements of industry, the professional body, the community or other stakeholders. The qualification and its competencies will have been developed nationally for the NVQs or locally or internationally for the institution’s own courses, in consultation with the appropriate stakeholders. Assessment will be fair, valid, consistent and to the required standard. Student assessment will be conducted nationally for the NVQs; locally for the institution’ s own courses; and in an international context for foreign qualifications. TVEC at present offer accreditation for courses leading to NVQs only.

#### **2.4.7.1. Policy on Accreditation of Training Courses for the NVQ**

TVEC is the authority responsible for the accreditation of training courses.

i. The accreditation process of NVQ courses shall be based on course accreditation criteria within the “National Vocational Qualifications of Sri Lanka”.

ii. Institutions seeking to offer certificate courses at NVQ levels 1 – 4 of the NVQ framework should begin development of their generic QMS immediately after registration. Institutions wishing to offer National Diploma courses at NVQ levels 5 & 6 must have their QMS fully installed to the satisfaction of the TVEC before applying for accreditation.

iii. An application for accreditation shall be entertained for the following course accreditation categories:

**a** Courses that are designed to meet the competencies of national competency standards leading to “National Vocational Qualifications”.

**b** Courses that are designed to meet the competencies of one or more units from a national competency standard in a single learning area or range of learning areas leads to a “Record of Achievement”.

i. Training institutes are expected to submit applications for each course in respect of each site at which the courses are conducted.

ii. Course accreditation shall be based on the “Criteria for Accreditation” decided and published by the TVEC.

iii. All applications for course accreditation shall be processed through the submission of a recommendation report to the Commission by the Director General for review and approval based on the following:

**a.** Suitability of the establishment including the facilities available, and the adequacy of the staff of the establishment.

**b.** Its ability to adequately provide technical and vocational education and training.

**c.** Ability to deliver the full content of the course.

**d.** Its conformity with the “National Vocational Qualifications of Sri Lanka”.

i. Following the approval of accreditation of the course by the Commission, the Director General shall award course accreditation to such training institute under such course name specified by the Commission.

ii. Periodically monitor and audit the progress of the registered institutions delivering accredited courses as per the process for monitoring and auditing of the TVEC quality assurance policy.

(National Vocational Qualifications Framework of Sri Lanka, Operation manual, October, 2009))

## **2.5 International Experience**

### **NVQ System in Jamaica**

The National Vocational Qualification of Jamaica (NVQ-J) is a certificate of competence that is recognized island wide as well as in the CARICOM and Commonwealth countries.

The award is proof that you have the skills, knowledge and understanding to perform in accordance to workplace requirements. The award is based on the demonstration of performance outlined in the Competency Standards for a qualification.

The NVQ-J certification is awarded at five (5) levels:

Level 5-Managerial, professional worker

Level 4- Supervisory, Specialist worker

Level 3 – Independent/ Autonomous, Skilled worker

Level 2- Supervised skilled worker

Level 1 – Directly Supervised Worker

Self-employed individuals

The NVQ-J provides the opportunity for more working age Jamaicans to get formal recognition of their competence. The NVQ-J can be awarded to:

- High school graduates
- School leavers without graduate certification
- Workers in the labour force
- Re-trenched (displaced) workers seeking new skills to re-enter the workforce

[http://www.nqrjamaica.org/nationalregister/generalinfo/mynvqj\\_info.aspx](http://www.nqrjamaica.org/nationalregister/generalinfo/mynvqj_info.aspx)

## NVQ System in United Kingdom

A number of organizations are/were involved in the process of developing, delivering, awarding and preserving the quality of NVQs:

- **Sector bodies** identify, define and update employment-based standards of competence for agreed occupations [These people effectively represent the interests of the trade or industry concerned, to which the particular NVQ relates. Sector Bodies define what the job entails. They do not engage with client organizations (employers), or training organizations.]
- **Awarding bodies** design assessment and quality assurance systems, and gain sector bodies endorsement prior to submission to QCA for accreditation of the qualification. **Awarding bodies** approve assessment centres to offer NVQs, implement and assure quality of the NVQs. [Awarding Bodies are basically the top-level training certification organizations - the ones whose names and logos are on the certificates - they don't deliver the training - they design the structures of the qualifications and accredit the certification, which the training organizations and Assessment Centers use and deliver. Awarding Bodies engage with client organizations if they are large enough to have their own NVQ



training and delivery departments. Awarding bodies engage with Sector Bodies and training organizations. Training organizations are effectively distributors of the Awarding Bodies' qualifications systems.]

- **QCA [Qualifications and Curriculum Authority]** accredits proposals for qualifications submitted by awarding bodies, and monitors awarding bodies offering NVQs. [QCA effectively manages the whole thing on behalf of the Government. QCA replaced/took over from the NCVQ - National Council for Vocational Qualifications in 1997.]
- **Assessment centers** assess NVQs (according to awarding body criteria).

The following definitions of NVQ levels provide a general guide and are not intended to be prescriptive

- **Level 1** Competence which involves the application of knowledge and skills in the performance of a range of varied work activities, most of which may be routine or predictable.
- **Level 2** Competence which involves the application of knowledge and skills in a significant range of varied work activities, performed in a variety of contexts. Some of the activities are complex or non-routine, and there is some individual responsibility and autonomy. Collaboration with others, perhaps through membership of a work group or team, may often be a requirement.
- **Level 3** Competence which involves the application of knowledge and skills in a broad range of varied work activities performed in a wide variety of contexts, most of which are complex and non-routine. There is considerable responsibility and autonomy, and control or guidance of others is often required.
- **Level 4** Competence which involves the application of knowledge and skills in a broad range of complex, technical or professional work activities performed in a wide variety of contexts and with a substantial degree of personal responsibility and autonomy. Responsibility for the work of others and the allocation of resources is often present.
- **Level 5** Competence which involves the application of skills and a significant range of fundamental principles across a wide and often unpredictable variety of contexts. Very substantial personal autonomy and often significant responsibility for the work of others and for the allocation of substantial resources feature strongly, as do personal accountabilities for analysis and diagnosis, design, planning, execution and evaluation.

[http://www.businessballs.com/nvqs\\_national\\_vocational\\_qualifications.htm](http://www.businessballs.com/nvqs_national_vocational_qualifications.htm)

## **2.6 Concept of college of Technology and NVQ courses that held COT**

The Department of Technical Education and Training has 38 Technical colleges (TCs) located in different parts of the country. Nine colleges of this have been upgraded as Colleges Of Technology (COTs) offer diploma level courses leading to National Vocational Qualification.(Annex ii)

NVQ Level 5 coursers that were held in 2011

1. National Diploma in Automobile Technology
2. National Diploma in Construction Technology
3. National Diploma in Farm machinery Technology
4. National Diploma in Food Technology
5. National Diploma in Information and Communication Technology
6. National Diploma in refrigeration & Air condition Technology
7. National Diploma in Telecommunication Technology
8. National Diploma in Welding Technology
9. National Diploma in Production Technology

(Details of DTET, 2011)

### **2.7 Matters influencing success of the result are mentioned as below.**

1. Teaching learning process.
2. Physical environment (recourses)
3. Testing and Evaluation system.

#### **Teaching learning process.**

Suitable curriculum, adequacy of qualified lecturers, Effective teaching methods, staff training and regular upgrading system, and regular base supervision system for educational process are concern in teaching learning process.

Curriculum: “A curriculum is an attempt to communicate the essential features of an educational programme, preferably using specific objectives and a systematic approach to the design and management of teaching and learning. Especially it should be capable of effective translation by teachers in the fields.” (Aspects of curriculum for technician education, Colombo plan Staff College)

Teaching Methods: In systematic process for the design and development of technician curricula consideration of effective communication activities is of great importance. Successful achievement of curricular objectives primarily depends on the quality of the communication activities used during implementation. For effective communication a variety of teaching methods and teaching learning resources need to be used. Teachers will have to understand the important features of these methods practice them and apply the criteria that will guide them to select appropriate methods for each instructional situation. Such an understanding is necessary because no single method alone can enable the students to achieve the specified learning outcomes.

### **Physical environment (resources)**

In the past few years there has been a growing tendency among educationalists to shift from the traditional teacher- centered teaching to student- centered learning. It is believed that efficient instruction is more allied to active participation (as in laboratory work) than to passive participation (as during a lecture) of the learner. This shift in teaching learning strategy calls for the use of a variety of the learner. This shift in teaching learning strategy calls for the use of a variety of learning resources appropriate to the new strategy. (Aspects of curriculum for technician education April- 1989) Therefore In this researcher concerned physical recourses like workshops, laboratory, Equipment and devices, and consumable materials.

### **Testing and Evaluation system**

Evaluation plays important part in the total teaching learning process. Although the term ‘measurement’ is often used in close conjunction with ‘evaluation’, the two terms neither should not be used interchangeably. The concept of evaluation is much more comprehensive and inclusive than the concept of measurement .Evaluation involves value judgments.

Long before educationists and psychologists attempted to develop techniques of measuring human abilities and educational achievement, man used the basic principles of measurement to build shelters, to make, to design clothing or to prepare the place to evoke the supernatural. Ancient Egyptians and ancient Indians developed techniques of measuring physical phenomena. Over many centuries those basic principles have been refined and applied in new areas.

The planning and organization of evaluation including measurement must be given as much care and expertise as any other element of the curriculum. For evaluating learning outcomes the basic principles of evaluation need to be considered carefully.

Some of the principles of evaluation are:

- (a) Evaluation must be in terms of observed student behavior,
  - (b) Evaluation must be based on the sample of behaviors given in the specific objectives,
  - (c) Evaluation must be at the same taxonomic level as stated in the objectives,
  - (d) Evaluation should cover all of the domains,
  - (e) Evaluation should a continuous process,
- (Aspects of curriculum for technician education- April- 1989)

## CHAPTER 3

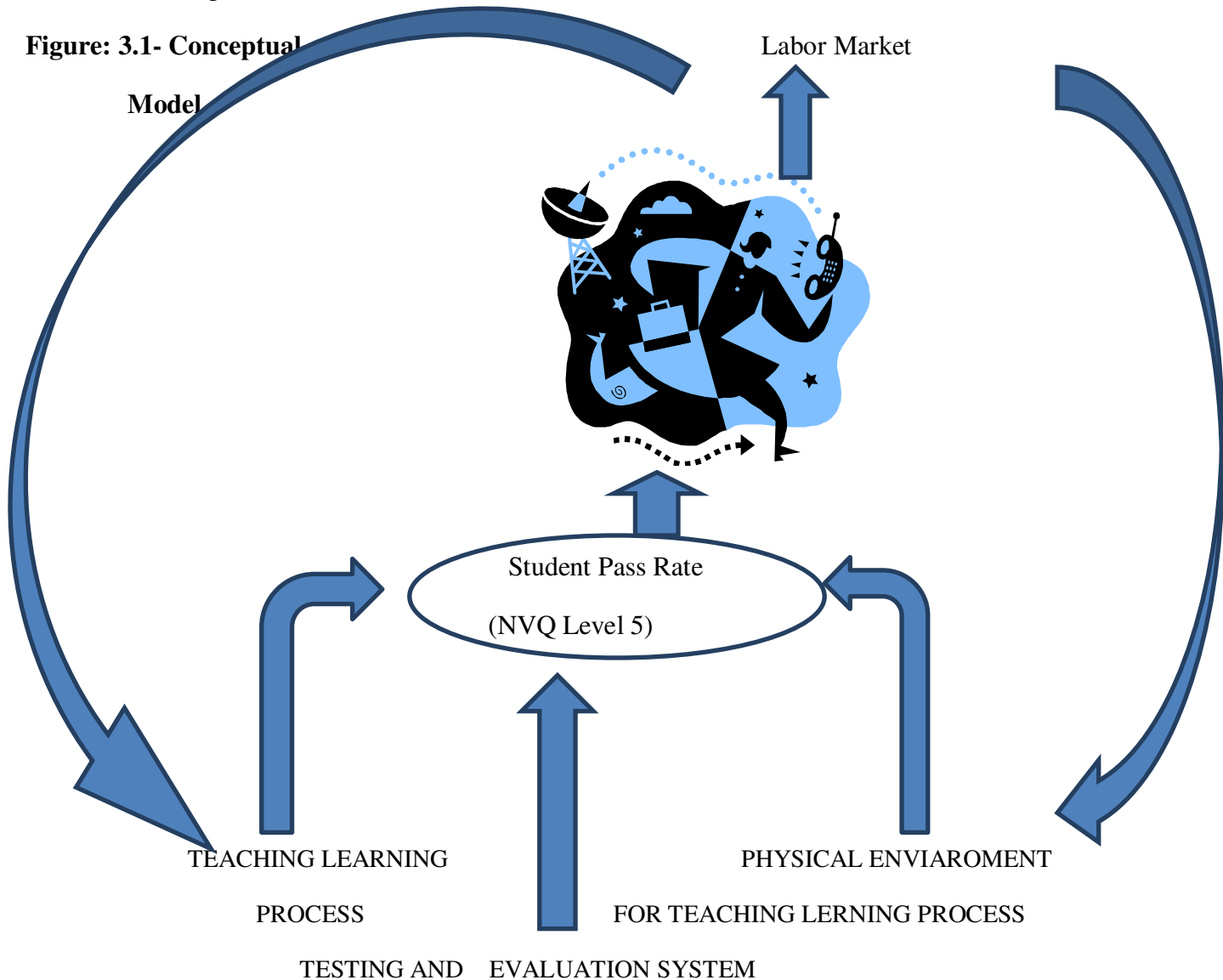
### Research Methodology

This study based on NVQ level 5 courses held in Colleges of Technology. This chapter deals with research design, research method, and research population, sampling procedure, data collection method and method of data analysis.

#### 3.1 Research Design

A research design is a plan, structure and strategy of investigation so conceived as to obtain answers to research questions or problems. It includes an outline of what the investigator will do from writing the hypothesis and their operational implications to the final analysis of data. Below mentioned conceptual model that shows the research structure.

**Figure: 3.1- Conceptual**



Likewise operationalization process discloses strategy to obtain answers to research problems.

**Table 3.1: Operationalization of concept and problems**

CONCEPT	VARIABLES	INDICATORS	MEASURES
Student Pass Rate	Teaching Learning Process	Effective Teaching / Learning System	Rate of successful Teaching/ Learning System
	Physical Environment for Teaching Learning Process	Suitable Physical Environment	Rate of Suitable Physical Environment Indicators
	Testing and Evaluation System	Accurate, Reliable Testing and Evaluation System	Rate of Having Accurate, Reliable Evaluation Criteria

### 3.2 Research Method

Descriptive method is adopted

### 3.3 Research Population

Nine colleges of Technology are functioning under Department of Technical Education and Training. These COTs conduct 9 courses of NVQ level 5.

According to this situation, research population is shown as below.

COTs 9

Directors 9

Deputy Directors 9

Lectures 50

Pass out Students 408 (Year 2011)

Coursers 09

In this research, researcher not in use sample procedure.

### 3.4 Respondents

Respondents are mentioned as below.

Directors

Deputy Directors

Lectures

Pass out Students

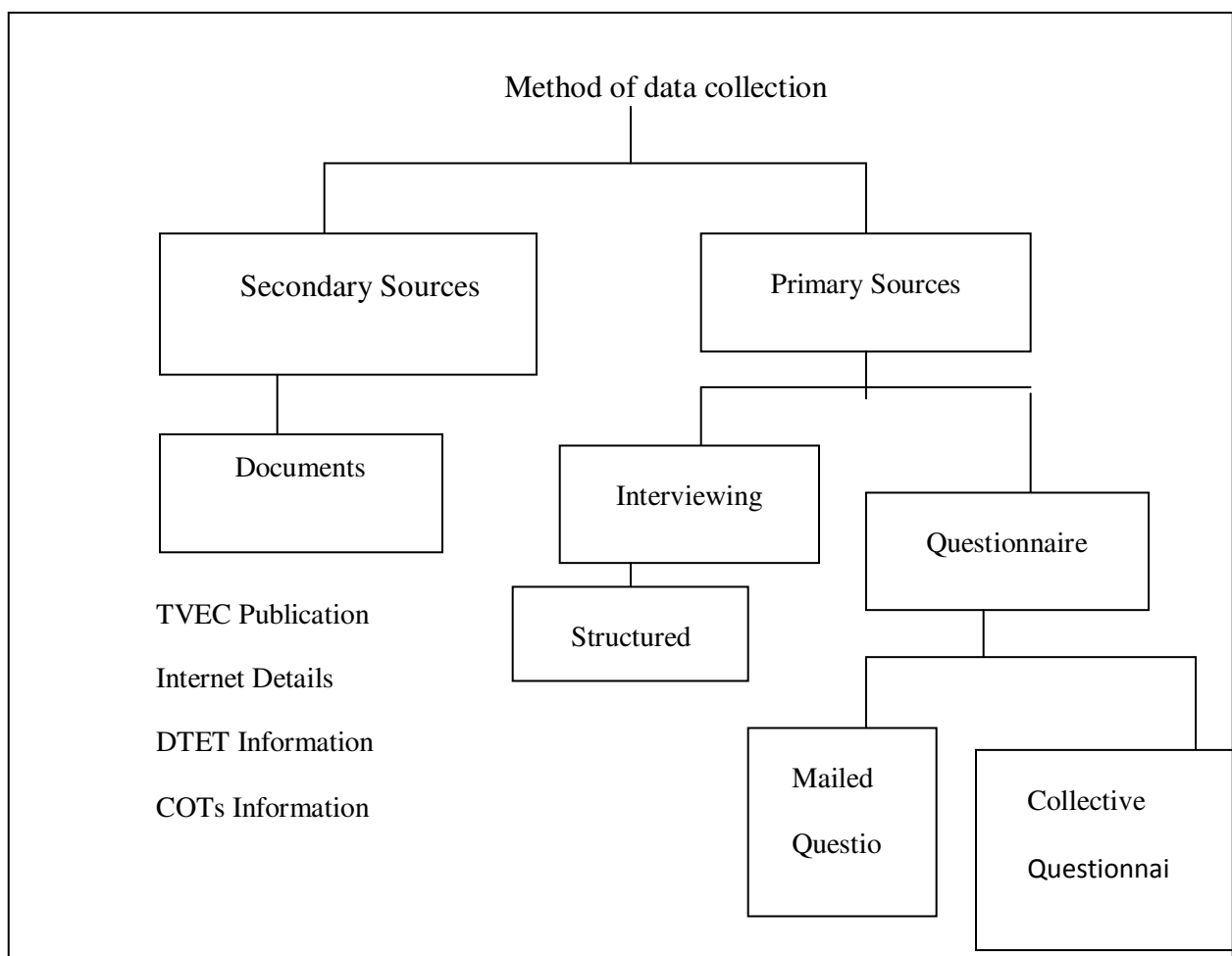
Assessors

Deputy Directors (TVEC)

Persons of making Curriculum

### 3.4 Method of Data Collection

Researcher collected data by using primary and secondary sources methods as mentioned below.



**Figure 3.2: Method of data collection**

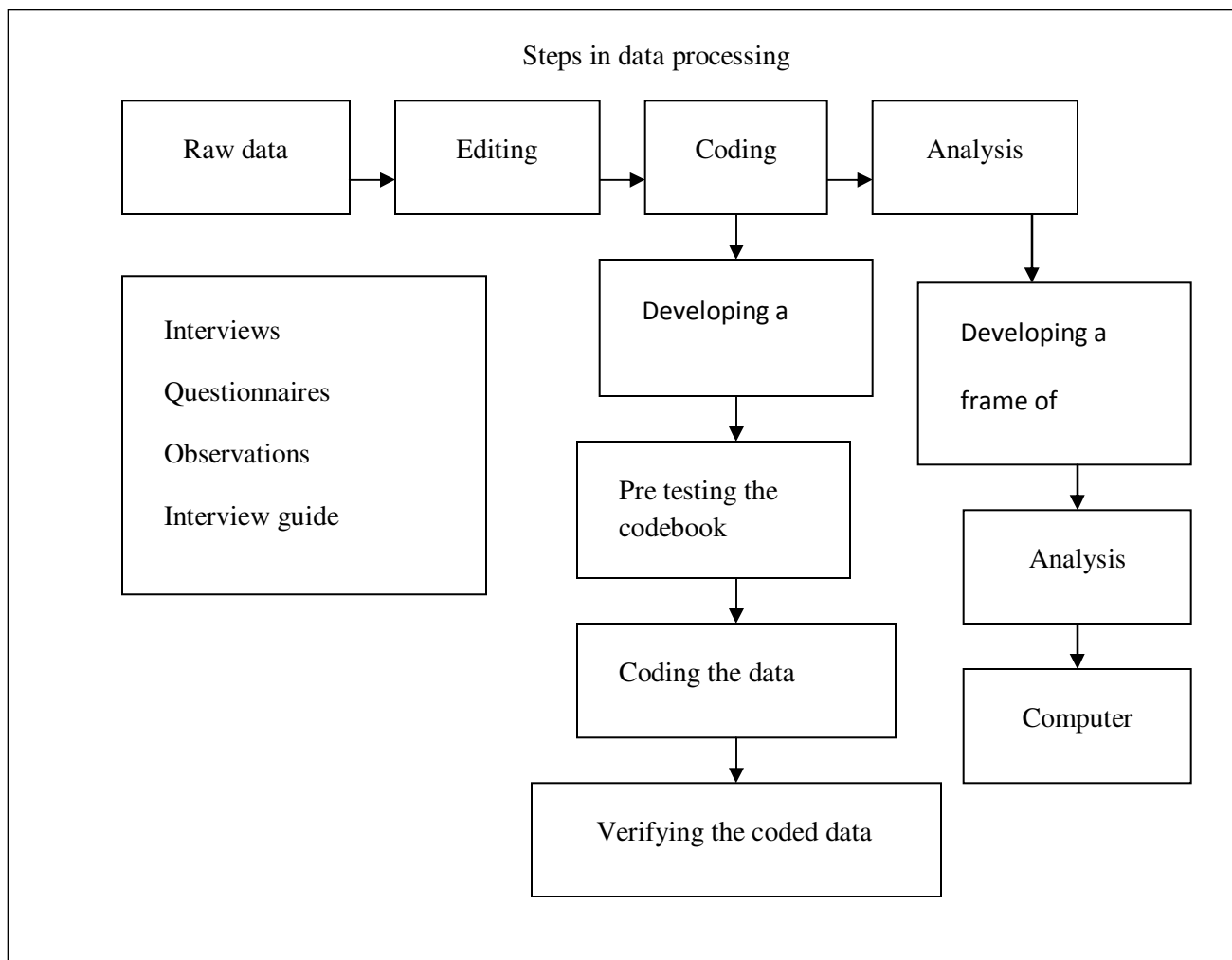
Researcher uses Questionnaire method for getting data. Mailed questionnaires were used for passed out students in the year 2011 and collective questionnaires for lecturers of COTs. Researcher uses the Interview method for the Director General of TVEC, Directors of

Department of Technical Education and Training (Academic Director/ Testing and Evaluation), Directors and Deputy Directors of COTs and Assessors. They are structured questionnaires.

In secondary source method, TVEC Publications, Internet Details, DTET Information, COTs Information are used.

### 3.5 Methods of data Analysis

In data Analysis, various steps will be followed. They are mentioned below (steps in data processing)



**Figure 3.3: Steps in data processing**

### **Editing Data**

Editing consists of scrutinizing the completed research instruments to identify and minimize, as far as possible, errors incompleteness, misclassification and gaps in the information obtained from the respondents.

### **Coding Data**

For analysis of data by computer, whether the data is quantitative or qualitative, it must be transferred to a form computers can interpret. Computers only understand binary language (language comprised of 0s and 1s). This process of converting information in to numerical values is called coding.

### **Analysis of Data**

Descriptive method is used for data analysis. Bulk of data is described by this method. In this, researcher concerns sample statistical analysis as percentage.

### **3.6 Method of Data presentation**

Having analyzed the data, the next task is to present findings effectively to readers. The main purpose of using data display techniques is to make the findings clean and easily understood.

In this study, tables, graphs, histogram, pie charts will be used for data presentation.



## **CHAPTER 4**

### **Analysis of searching reasons for lower pass rate of the courses of NVQ level 5 in colleges of technology**

Main objective of this chapter is to present the results of responses obtained through questionnaires and interviews (Directors, Deputy Directors, students, academic staff, Assessors). Researcher hopes to analyze the issues that are related to the lower pass rate of the courses of NVQ level 5 in COTS and make suggestions to overcome the issues through data which has got from questionnaires. In addition, researcher has analyzed data got from supervision and interviews according to objectives.

According to conceptual model, researcher concerned about teaching learning process of NVQ level 5 courses, physical environment for teaching learning process and testing and evaluation system for searching reasons for lower pass rate of the courses of NVQ level 5 in COTS. Questionnaires, interviews, supervision and review of secondary data have covered above fields.

#### **4.1 Pass rate of NVQ level 5 that held in COTS**

According to secondary data and interview (testing and evaluation unit's records) researcher has got student pass rate in 2011. Student pass rate in 2011 is mentioned as follows.

**Table 4.1: Students Pass Rate in 2011 (Semester 2 Exam)**

Course name	College Of Technology	No of applied	No of sat	No of qualified for final Assessment	Competent Student	Student Pass Rate
National Diploma in Automobile Technology	Kandy	16	16	03	06	37.5
	Ampara	11	11	01	01	9.1
	Kurunegala	15	15	04	05	33.3
National Diploma in Construction Technology	Galle	08	08	02	02	25.0
	Ampara	28	25	06	01	4.0
	Kurunegala	22	22	07	06	27.3
	Anuradhapura	15	15	06	03	20.0
	Badulla	08	08	03	06	75.0
National Diploma in Farm machinery Technology	Anuradhapura	07	07	06	06	85.7
National Diploma in Food Technology	Kandy	10	10	07	08	80.0
National Diploma in Information Communication and Technology	Maradana	39	38	12	09	23.7
	Kandy	21	21	11	09	42.9
	Galle	20	20	12	12	60.0
	Badulla	44	43	25	22	51.2
	Ratnapura	42	42	11	07	16.7
National Diploma in refrigeration & Air condition Technology	Anuradhapura	17	17	11	01	5.9
National Diploma in Telecommunication Technology	Galle	12	12	07	06	50.0
National Diploma in Welding Technology	Maradana	12	12	01	0.0	0.0 *
National Diploma in Production Technology	Kandy	07	07	04	04	57.1
Total		354	349	139	114	33

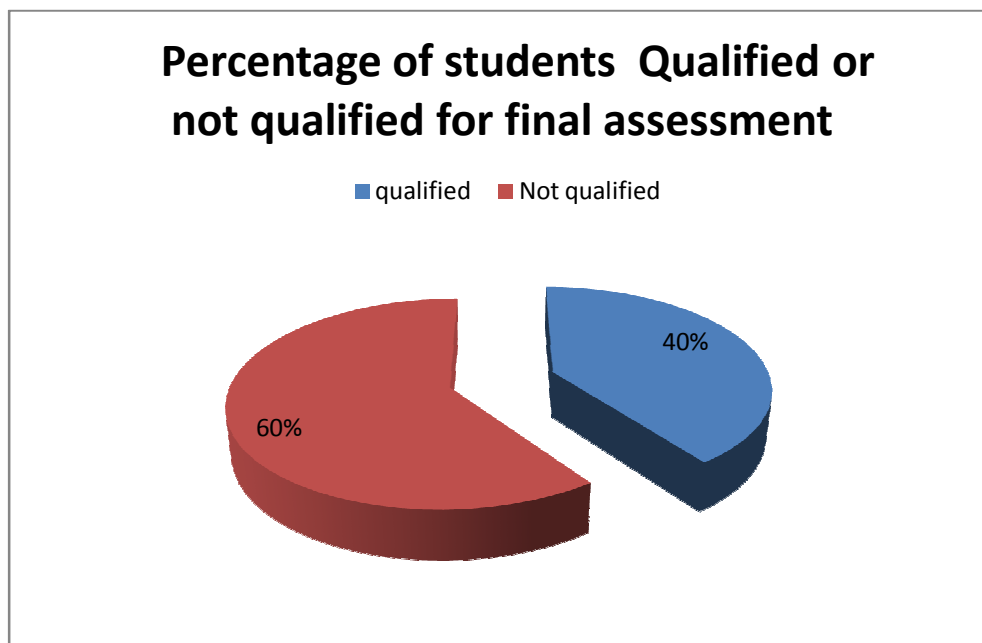
\* This student has not face the final assessment.

Students should be passed the semester 1, semester 2, and final assessment to pass the NVQ level 5 courses. Thus, he or she should be passed the continuous Assessment to face the semester exams.

According to above table, researcher has concerned about the percentage of students qualified for final assessment.

**Table 4.2: Whether the students are Qualified or not for final assessment**

Students qualified or not	percentage
qualified	40%
Not qualified	60%
Total	100



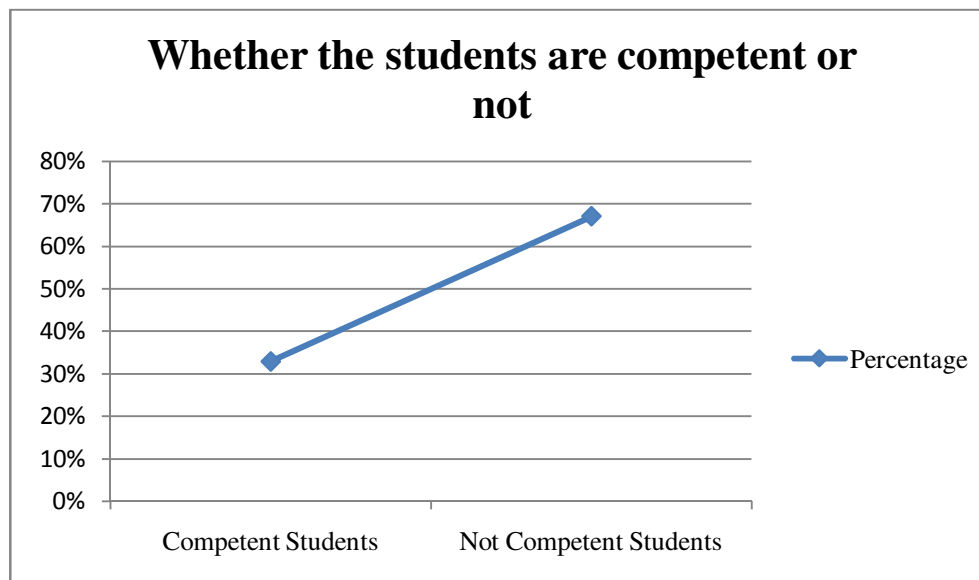
**Figure 4.1 whether the students are qualified or not**

Above table and figure 4.1 shows 60% of students are not qualified for final assessment.

Researcher code some details from above table for searching whether the students are competent or not.

**Table 4.3 .whether the students are competent or not.**

Whether the students are competent or not.	Percentage
No of students Competent	33%
No. of students not Competent	67%
Total	100



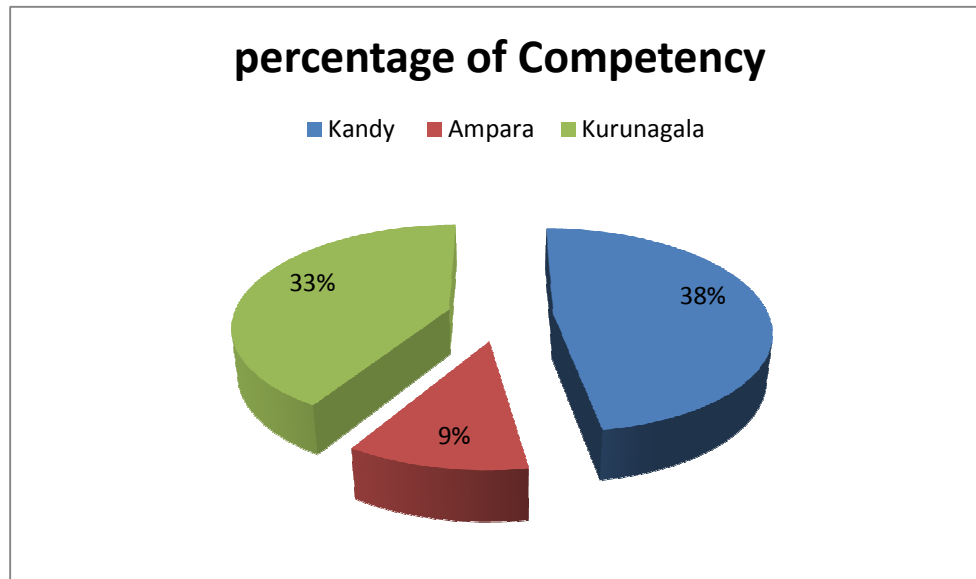
**Figure 4.2 whether the student are competent or not**

In examining the table 4.4 and figure 4.2 Out of all the students who sat for the NVQ level 5 examination, sixty seven percent of students are not competent (in all courses). It is a very high rate of failure.

When considering about the given courses separately, many courses show a low pass rate. **National Diploma in Automobile Technology** course has held in three COTs in 2011.They are Kandy, Ampara and Kurunagala .These colleges results mentioned as below.

**Table 4.4 Students percentage of Competency in National Diploma in Automobile Technology**

College Of Technology	percentage of Competency
Kandy	38%
Ampara	09%
Kurunagala	33%



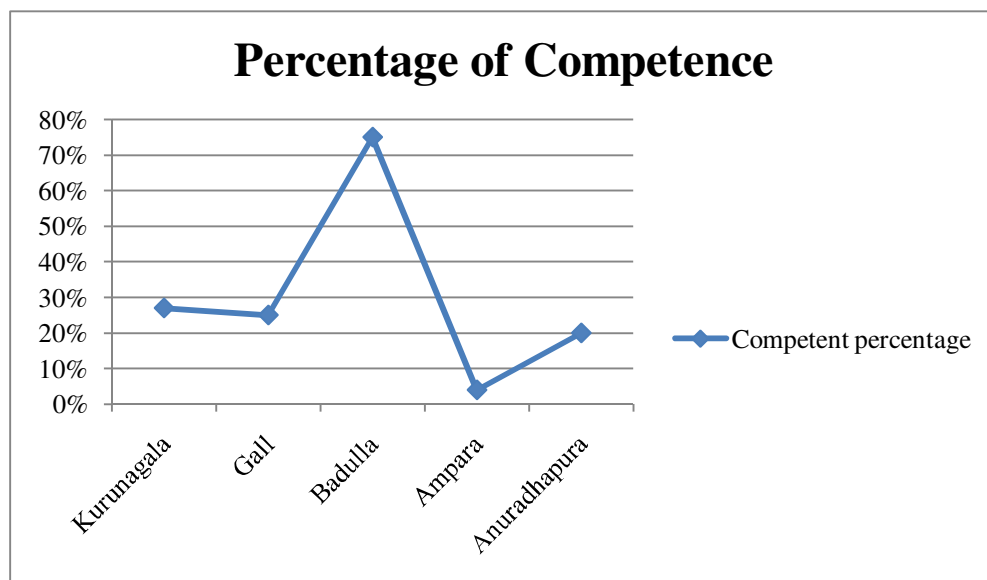
**Figure 4.3 Students Competent percentage in National Diploma in Automobile Technology**

Above table 4.4 and figure 4.3 shows thirty eight percent of students who sat the examination in kandy COT (and assessment) are competent. But, the Incompetence rates of the Students are very high. Ampara is nine percent and Kurunagala is thirty three percent. In comparing these three Cots, Ampara Cot shows the lowest competence rate.

**National Diploma in construction Technology** course has been conducted in five COTs in 2011. They are Kurunagala, Anuradhapura, Galle, Badulla, and Ampara. Results of the above course in these colleges are given below.

**Table 4.5 Students percentage of Competence in National Diploma in Construction Technology**

Colleges Of Technology	Percentage of Competence
Kurunagala	27%
Gall	25%
Badulla	75%
Ampara	4%
Anuradhapura	20%



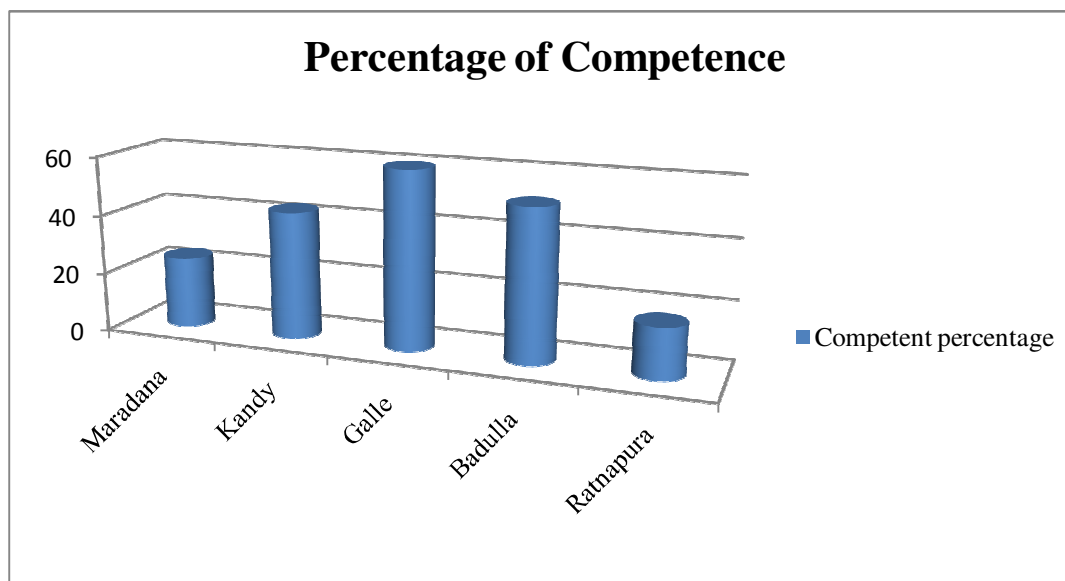
**Figure 4.4 Students percentage of Competence in National Diploma in Construction Technology**

According to table 4.6 and figure 4.4, when the four COTs are considered separately they show very low competence rate. Badulla is very high. But Ampara is very low. Anuradapura, Galle, and Kurunagala are showing lower pass rate.

**National Diploma in Information and Communication Technology** course has been held in five COTs in 2011. They are Maradana, Kandy, Galle, Badulla and Rathnapura. Percentage of students' Competence rate of the above COTs is mentioned in the table below.

**Table 4.6 Students percentage of Competence rate in National Diploma in Information & communication Technology**

College Of Technology	Percentage of competence
Maradana	24%
Kandy	43%
Galle	60%
Badulla	51%
Ratnapura	17%



**Figure 4.5 Students' percentage of Competence in National Diploma in Information and Communication Technology**

In examining the above table and figure, It shows lower than fifty percent of competence in Kandy, Maradana, and Rathnapura COTs. Rathnapura COT shows the lowest pass rate.

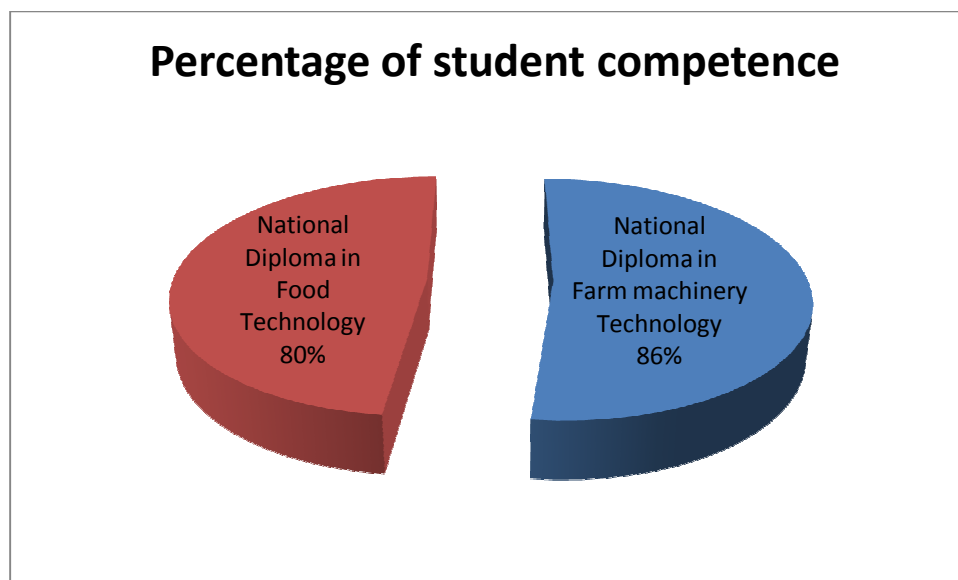
**National Diploma in refrigeration & Air condition Technology** course has been held only in one COT in 2011. It is the Anuradhapura COT. It has six percent of competence rate. Out of seventeen students, only one student has passed.

**National Diploma in Welding Technology** course has been held only in one COT in 2011. It is the Maradana COT. Out of seventeen students, no one has passed. Though one student had qualified for the final assessment he had not faced for it.

**National Diploma in Farm machinery Technology and National Diploma in Food Technology** are held in Anuradhapura and Kandy respectively. Competent student rate of these courses are very high (86%, 80%). Below table and figure show that detail.

**Table 4.7 Percentage of Student Competence in National Diploma in Farm machinery Technology and National Diploma in Food Technology**

College of Technology	Percentage
Anuradhapura (Farm machinery Technology)	86%
Kandy (Food Technology)	80%



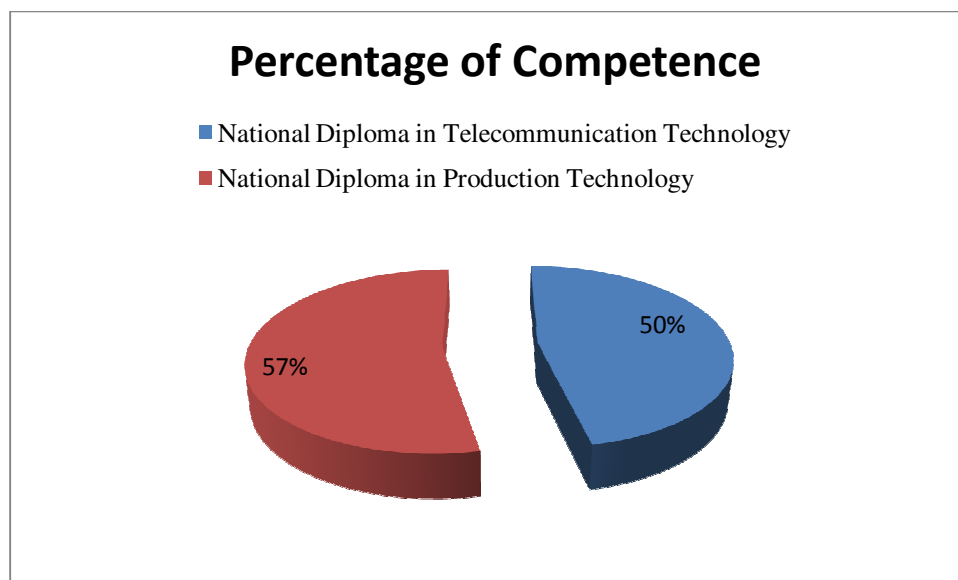
**Figure 4.6 Student Competent percentage in National Diploma in Farm machinery Technology and National Diploma in Food Technology**

**National Diploma in Telecommunication Technology and National Diploma in Production Technology** had been held in Galle and Kandy respectively in 2011. Competent students of these courses are at a medium level (50%, 57%). Table and figure below shows that in detail.

**Table 4.8 Percentage of Student Competence in National Diploma in Telecommunication Technology and National Diploma in Production Technology**

College Of Technology	Competent percentage
National Diploma in Telecommunication Technology - Galle	50%
National Diploma in Production Technology - Kandy	57%





**Figure: 4.7. Percentage of student competence in National Diploma in Telecommunication Technology and National Diploma in Production Technology**

In examining the details of the pass rate in NVQ level 5 courses which were held in COTs shows the lower pass rate in common.

As mentioned in secondary data, teaching learning process must compulsorily influence on the pass rate of students. In the teaching learning process researcher concerned about the nature of courses, students entry qualification, curriculum, teaching delivery methods, qualification of the academic staff, and staff training facilities.

#### 4.2. Nature of courses

Answers got for questionnaires of the Directors of COTs show nature of the NVQ level 5 courses which had been held in COTs in 2011

Second objective of the research is fulfilled by these answers. There are nine diploma courses held in COTS. They are mentioned as follows.

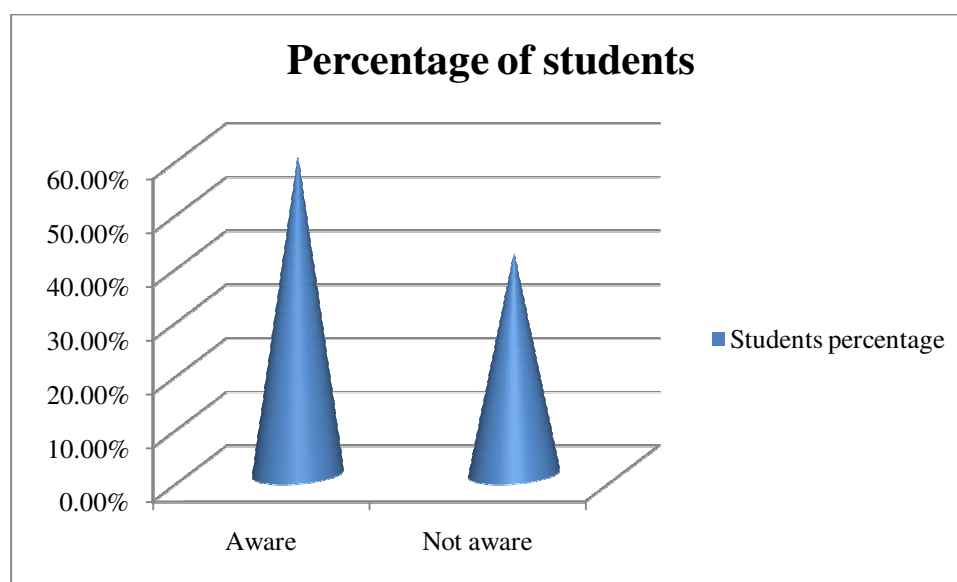
**Table 4.9: COTs where NVQ level 5 courses were held in 2011**

Course Name	Colleges of Technology
National Diploma in Automobile Technology	Kandy, Kurunegala, Ampara
National Diploma in Construction Technology	Kurunegala, Anuradhapura, Badulla, Ampara
National Diploma in Farm machinery Technology	Anuradhapura
National Diploma in Food Technology	Kandy
National Diploma in Information and Communication Technology	Kandy, Badulla, Ratnapura, Maradana, Galle
National Diploma in refrigeration & Air condition Technology	Anuradhapura
National Diploma in Telecommunication Technology	Galle
National Diploma in Welding Technology	Maradana
National Diploma in Production Technology	Kandy

When concerning NVQ level 5 courses, they are different from non NVQ level courses. DTET offered NVQ level courses in 2001. In 2001 Skills Development Project (SDP) has introduced Curriculum Based Training (CBT) and NVQ based on CBT. The aim of CBT is to improve the standards of work place performance. NVQ are designed to measure the competency of different vocational skills. Students' awareness of the course is a must for a successful learning. Also, lecturers must be well aware of the course for a successful teaching. Researcher asked questions from lecturers and students about the awareness of NVQ. Researcher searched about awareness of students for NVQ by question number 4 in student questionnaire. Analysis of students reply is mentioned below.

**Table 4.10 Awareness of students of NVQ**

Awareness of NVQ	Students percentage
Aware	59%
Not aware	41%
Total	100%

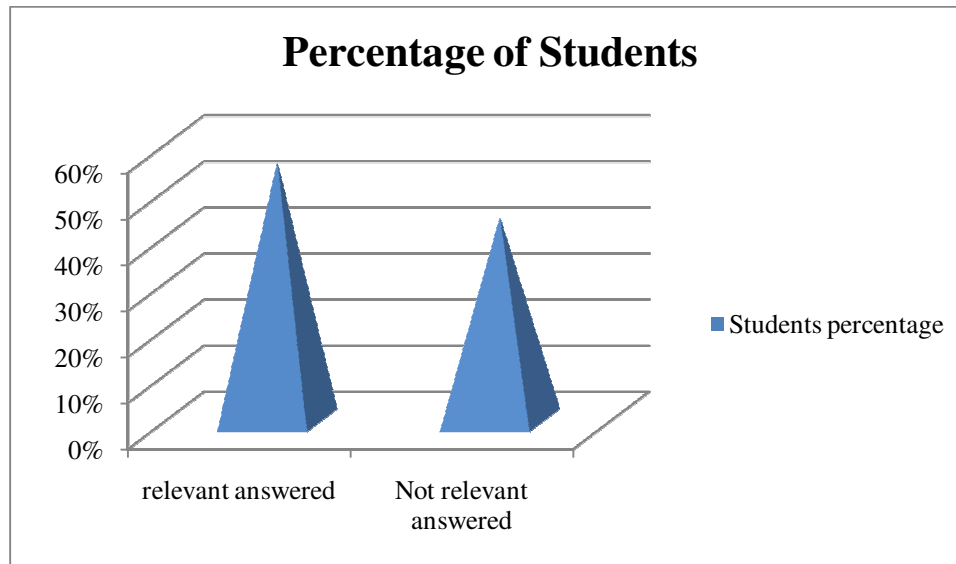


**Figure 4.8 Awareness of students of NVQ**

Though some students had answered “yes” to question number 4, only few students could mention the difference to question number 5 clearly. According to question number 5, an analysis of relevant answer is given below.

**Table 4.11 Students who answered correctly for Question No, 5**

Students who answered correctly for Q.No,5	Students percentage
Students answered relevantly	56%
Students not answered relevantly	44%
Total	100%



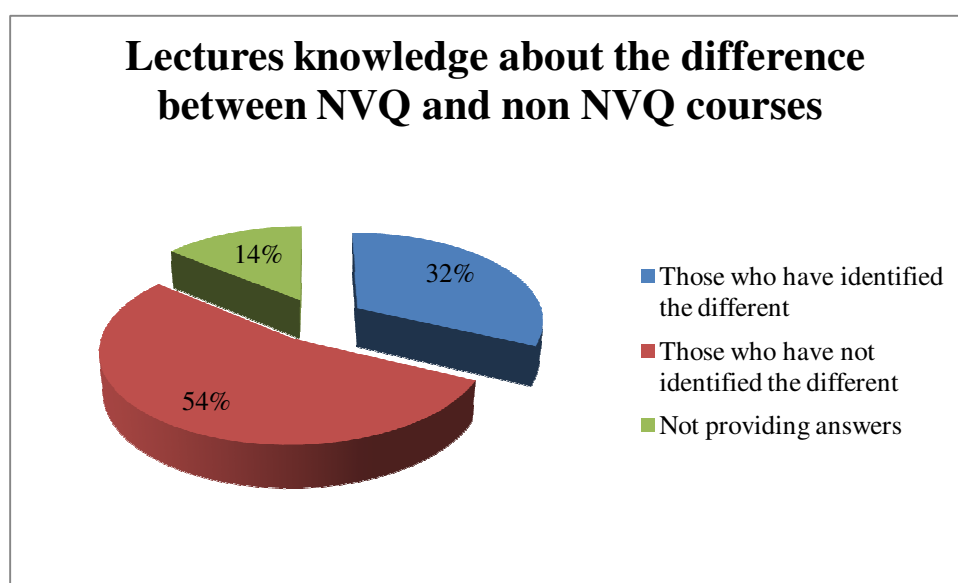
**Figure 4.9 Students who answered relevantly for Q. No, 5**

According to above figures, fifty six percent of students had answered relevantly from students who had mentioned that they were aware of NVQ. Some students who had answered “Yes” to this question had not given the relevant answer.

As well as students, lectures also must know what NVQ is. It will be a cause for a successful teaching learning process. Researcher has inquired about this by question no 10 in the questionnaire for lecturers .An analysis of the answers given to the above question is given below.

**Table: 4.12. Lectures knowledge about the difference between NVQ and non NVQ courses**

Whether identified or not identified the difference between NVQ and non NVQ courses	Percentage of lecturers
Those who had identified the difference	32%
Those who had not identified the difference	54%
Not answered	14%
Total	100%



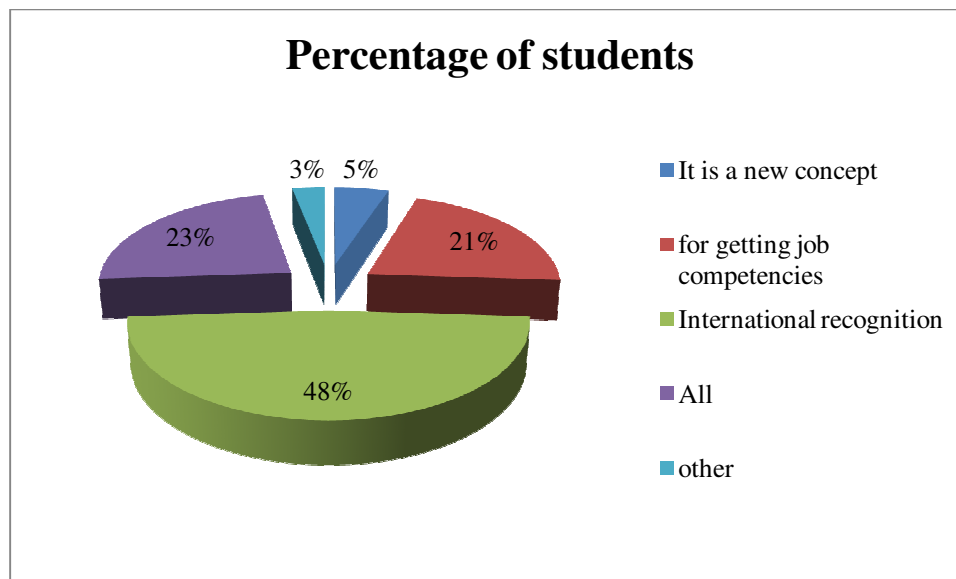
**Figure: 4.10 Lectures knowledge about the difference between NVQ and non NVQ courses**

According to the above figure, thirty two percent of lecturers had identified the difference between NVQ and non NVQ courses. Out of these thirty two percent, forty six percent of them had given answers which are irrelevant. Fifty four percent of lectures had not identified the difference between NVQ and non NVQ courses. Researcher has inquired about the above knowledge from Directors and Deputy Directors by question no.13 in the questionnaire given to them. The purpose of that question was whether the lecturers were made aware regarding the NVQ courses by the director's .Hundred percent of directors and deputy directors had answered it "yes". Accordingly there is a contradiction between the responses of the directors and the lecturers. According to above analysis it is clear that the knowledge about NVQ courses between the lecturers and the students are inadequate. Teaching learning process is not successful when there is inadequacy of knowledge about these courses. **So lectures and students should be well aware about NVQ courses.**

In addition to awareness of NVQ courses, researcher has attempted to search the reasons for selecting courses by students. It is referred by question number six in the questionnaire for students. Analysis of student's replies is mentioned as below.

**Table: 4.13.Reasons for selecting courses.**

Reasons for selecting courses	Student percentage
It is a new concept	05%
For getting job competencies	21%
International recognition	48%
All	23%
other	03%
Total	100%



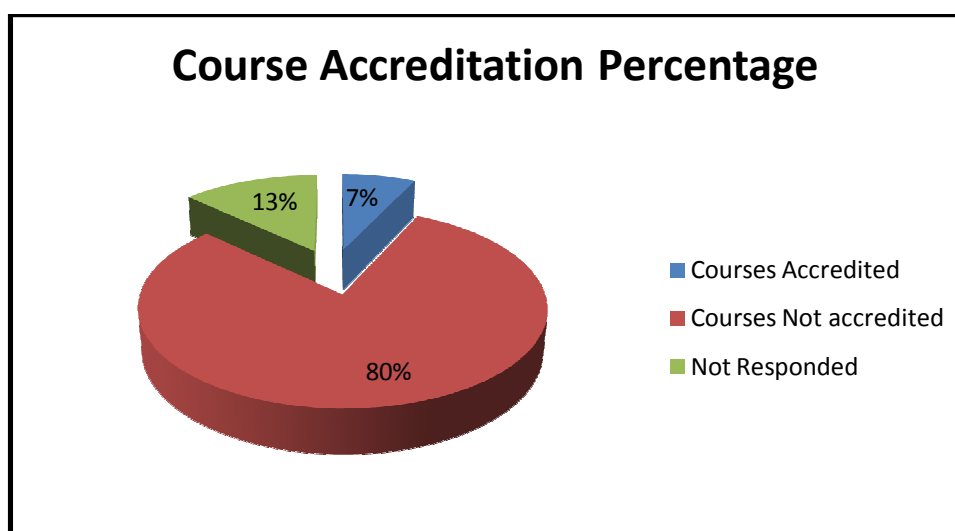
**Figure: 4.11 Reasons for selecting courses**

The student will be selecting any course on his wish. By this question, the researcher has indirectly examined students' awareness of NVQ. Student should know about the form of the course before selecting it. According to above data, students have known about the form of NVQ courses as with job competencies, international recognition etc. if they had not known the difference between NVQ and non NVQ. Forty eight percent of students knew that NVQ is an internationally recognized one. Twenty one percent of students knew that it was based on job competencies. They address to learning more effectively on this knowledge. Regarding the NVQ courses more important thing is the knowledge of job competency. Then they will follow it achieving the job competency. But the researcher do not consider about the truth of this answer because these answers are made by the researcher (by making them put a tick in the box).

Accreditation of courses is one of the special procedures for NVQ Level courses. This procedure provides guidance to TVEC when training establishments seek accreditation and industry assessors identify suitable workplaces for assessment. The TVEC has determined the generic quality management requirements of establishments. In addition any specific industry requirements for the units in the package must be met, before accreditation is granted. In particular, this applies to matters of health and safety for specific units or sets of units. Industry may determine that some units may only be assessed in realistic work environments and this must be specified here. According to this, course accreditation system ensures the suitable environment for teaching learning process. Researcher searched this accreditation procedure in the questionnaire for COT Directors. Analysis of their answers is mentioned below.

**Table: 4.14. Course Accreditation**

Courses Accredited or not	Percentage
Courses Accredited	7%
Courses Not accredited	80%
Not Responded	13%
Total	100%



**Figure 4:12 Course Accreditation**

According to above data analysis, eighty percent of the courses are not accredited (as at 2011). Some criteria had been completed by COTs like quality of workshop, Adequacy of lecturers etc. Students will be unable to get good results in a place without accreditation.

### 4.3 Students Entry level qualification

Students who have relevant qualification can learn subject matters easily. Accordingly researcher has searched about qualification of their recruitment. According to gazette notification (2013.01.18) students should have obtained NVQ level 3/4 certificates for the admission to NVQ level 5 Courses (Annex iii). Therefore, suitable candidates should be selected on the results of an aptitude test and interview. Entry level qualifications of Many NVQ level 3 and 4 courses are G.C.E ordinary level qualification (in six subjects with passes in mathematics and medium language in not more than two sittings) in DTET. These qualifications are not required for some NVQ level 3 and 4 courses in other institutions like Vocational Training Authority (VTA). Therefore, Students who obtain NVQ level 3 and 4 by Recognition of Prior Learning (RPL) system do not need GCE O/L qualification. Accordingly, these students who are at various educational levels are in the class of the NVQ level 5. Qualifications of various levels are not suitable for getting expected results.

As mentioned in the gazette notification, all courses are conducted in English medium. Students who have a better knowledge of English can follow English medium courses successfully. But all students who have followed NVQ level 3 and 4 courses do not have a sufficient knowledge of English. Communication skills (English) are one of the subjects of NVQ level 3 and 4 courses which are held in DTET. If so hundred percent of the students in COTs (DTET students who are coming from other institutions) have mentioned that they are poor in English. Specially, students who are coming from RPL system for level 3 and 4 do not have sufficient knowledge of English to study the NVQ level 5.

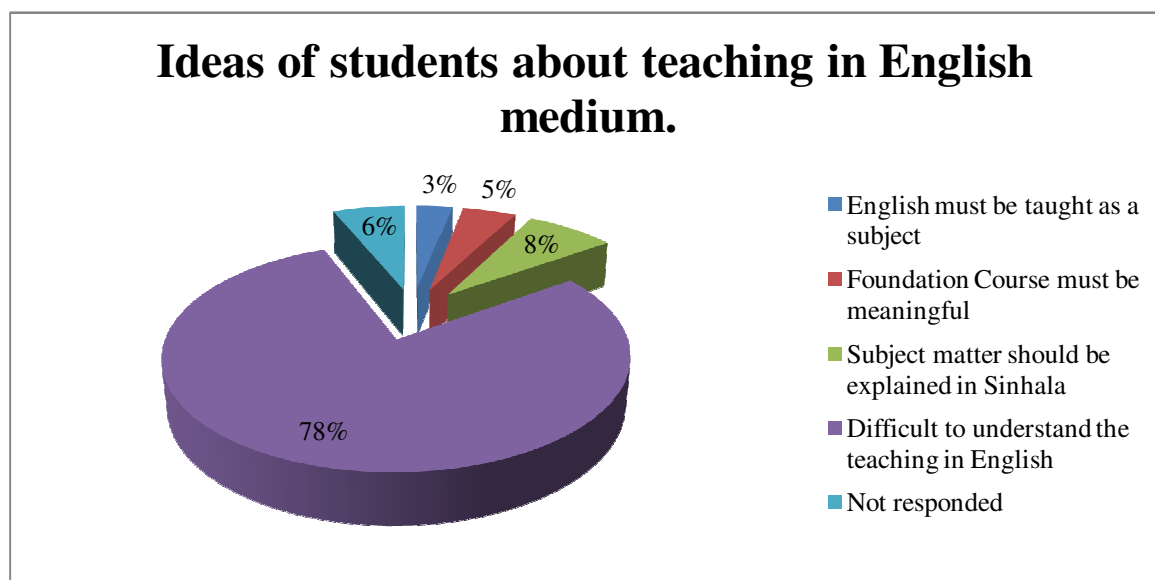
At the starting point of the NVQ level 5 courses, all students should follow the foundation program. There are four subjects under foundation studies with each subject having several modules:-

- i. communication skills in English
- ii. Mathematics for technology
- iii. Science for technology
- iv. Computer Literacy

Basic knowledge of students will influence the better learning. Researcher referred about students learning by English medium. Their ideas are shown by below table.

**Table : 4.15 Ideas of students about teaching in English medium.**

Ideas	Percentage
English Must be taught as a subject	3%
Foundation course must be meaningful	5%
Should be explained in Sinhala	8%
Difficult to understand when teaching in English	78%
Not responded	6%
Total	100



**Figure 4:13 Ideas of students about teaching in English medium**

Seventy eight percent of students expressed that it is difficult to understand when teaching in English. Five percent of students stated that foundation course is not meaningful because it is not a remedy for the inadequacy of English knowledge. Furthermore, they expressed that there are not sufficient time frame for learning subjects in the foundation course deeply. Lecturers presented that reforming the foundation courses and change of the time schedule. Eight percent of students presented their ideas that subject matters should be explained in Sinhala.

Ninety percent of lecturers have mentioned that student's entry qualification is not sufficient to carry out the teaching learning process successfully. They had noticed that student's entry qualifications should be increased to GCE A/L (science or Mathematics stream) or O/L with two credit passes for Mathematics and science.

#### **4.4 Curriculum for teaching learning process**

According to Beauchamp (1972)

“A curriculum is the product of curriculum planning, it is a written document intended to be used by teachers for developing teacher strategies for specific group of students.”

(Colombo plan staff college for technician Education, 1989)

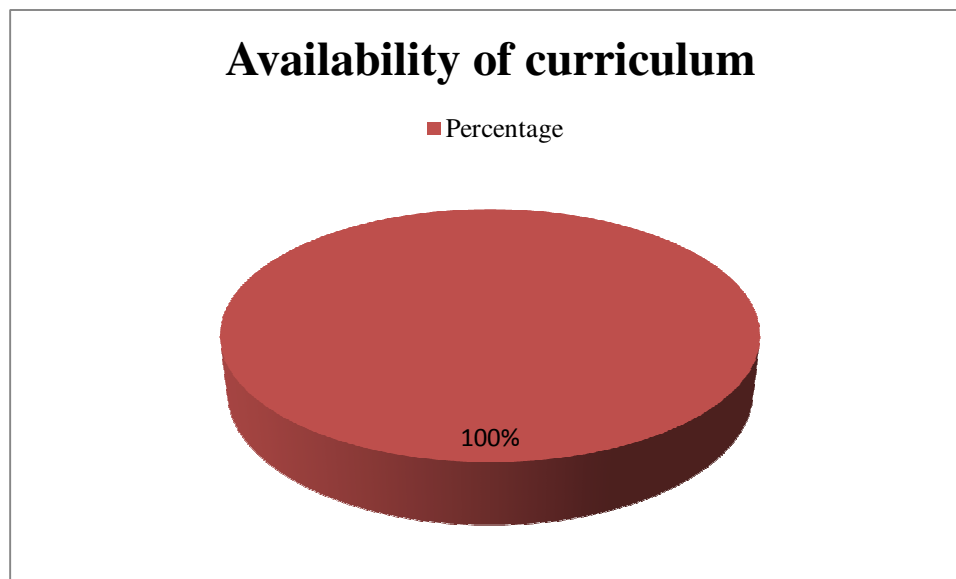
The curriculum must be viewed as one of systematically making decisions about the objectives of the educational programs, content, organization and methods and evaluation of the program outcomes. Curriculum is very important for developing teaching strategies. Therefore, researcher



concerned about availability of curriculum for lecturers by question number seven of lecturers questionnaire. Data got from this question is analyzed as shown in table 4.16 and figure 4.13

**Table 4:16 Availability of Curriculum**

<b>Availability of curriculum or non availability</b>	<b>Percentage</b>
Availability of curriculum	100%
Non availability of curriculum	0
Total	100%

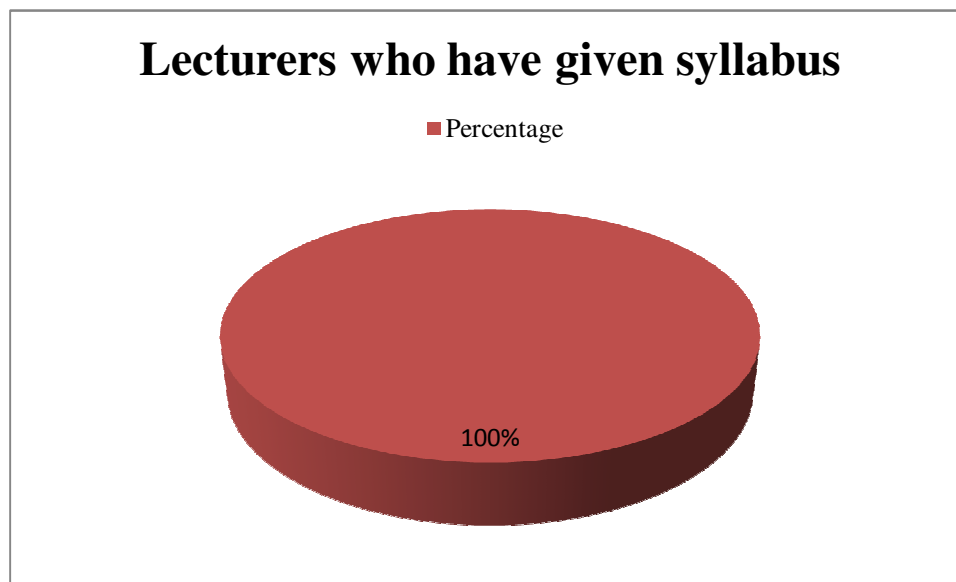


**Figure 4:14 Availability of Curriculum**

Also lecturers must give the syllabus (content of subject) to students to know what they are learning and what is expected from them after learning. Then students can learn easily. The answers got for question number nine of questionnaire for lecturers have analyzed as shown in the table 4:16 and figure 4:14.

**Table: 4:17 whether the syllabus is given to students or not given.**

Whether the syllabus is given or not	Percentage
Lecturers who have given the syllabus	100%
Lecturers who have not given the syllabus	0%
Total	100

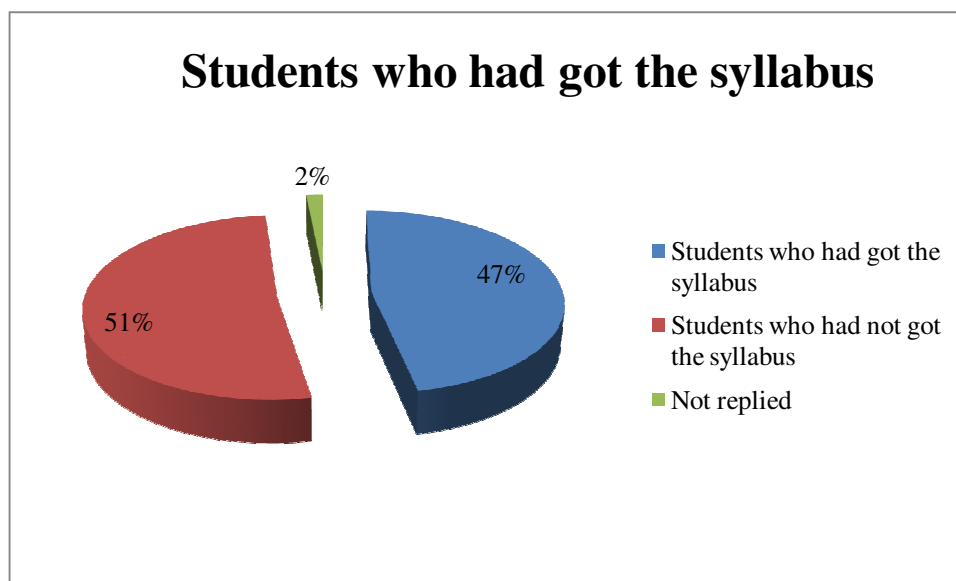


**. Figure: 4:15 whether the syllabus is given to students or not.**

Whatever the lecturers answer is, students stated different ideas for equal questions. Answers got for question number three of questionnaire of student's show that they had not got the syllabus. These answers are analyzed as shown bellow.

#### **4:18 Students who had got the syllabus**

Whether the syllabus is got or not	Percentage
Students who had got the syllabus	47%
Students who had not got the syllabus	51%
Not replied	2%
Total	100



**Figure 4:16 Students who had got the syllabus**

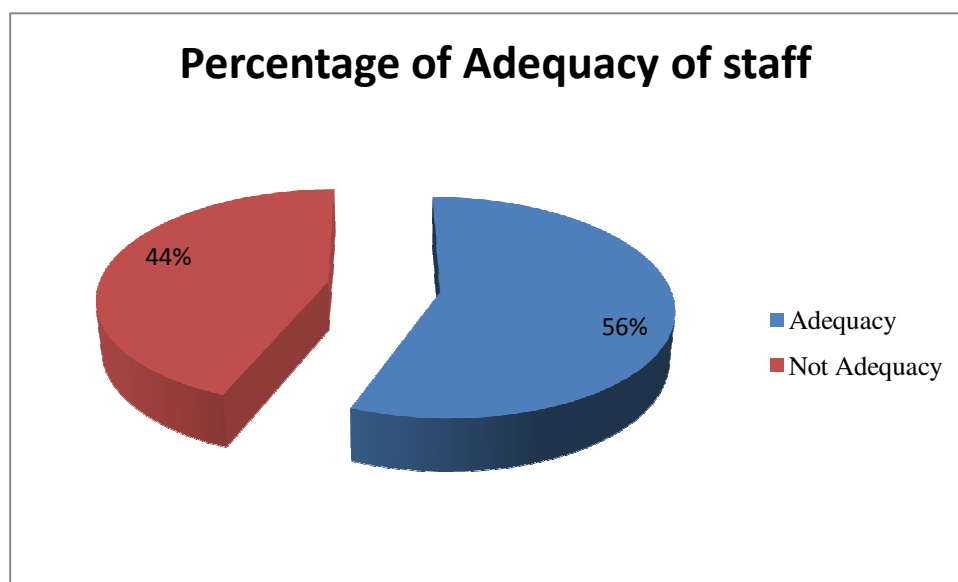
Fifty one students responded that they had not got the syllabus. Hundred percent of COTs directors stated that they have got the curriculum. Whatever the answers of Directors and lecturers for this question, it is clear that students who had not got the syllabus are in that population

#### **4.5 Academic staff of COTs**

Adequate and qualified academic staff is more valuable reason for a successful academic process. Seventy one percent of COT Directors agreed that they do not have adequacy of staff. Bellow table and figure show an analysis of question number nine in the Directors' questionnaire.

**Table 4.19 Adequacy of staff (According to Directors)**

<b>Adequacy or non adequacy</b>	<b>Percentage</b>
Adequate	56%
Not Adequate	44%
Total	100%

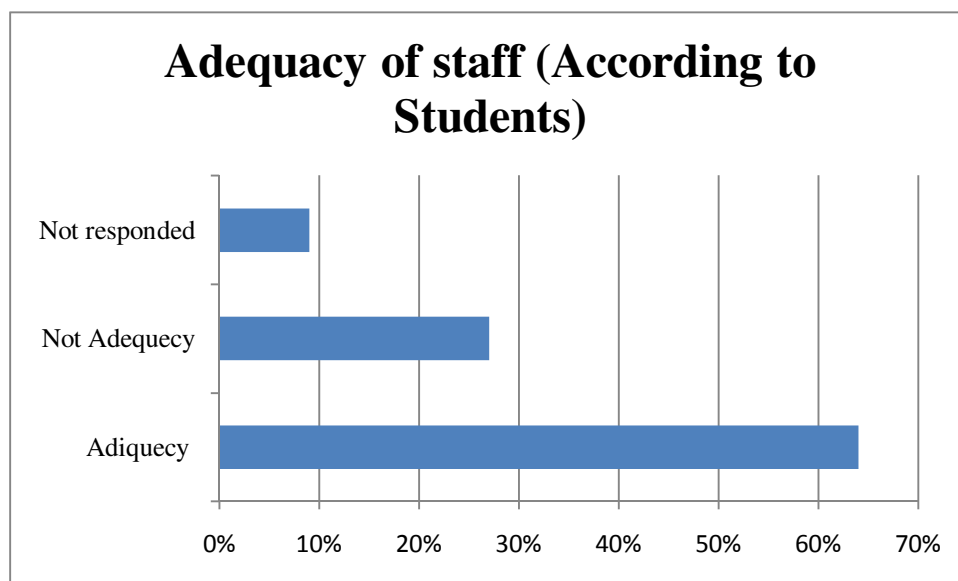


**Figure 4.17 Adequacy of staff**

Sixty four percent of Students responded that they have sufficient academic staff for all subjects. But eighteen percent of students responded that they have not sufficient academic staff. According to Directors and students, there is not sufficient staff in COTs. This situation can influence on the lower pass rate in NVQ level 5 courses. Shortage of staff in COTs is shown in table 4.20 and figure 4.17

**Table: 4.20 Adequacy of staff (According to Students)**

Adequate or not Adequate	Percentage
Adequate	64%
Not Adequate	27%
Not responded	9%
Total	100

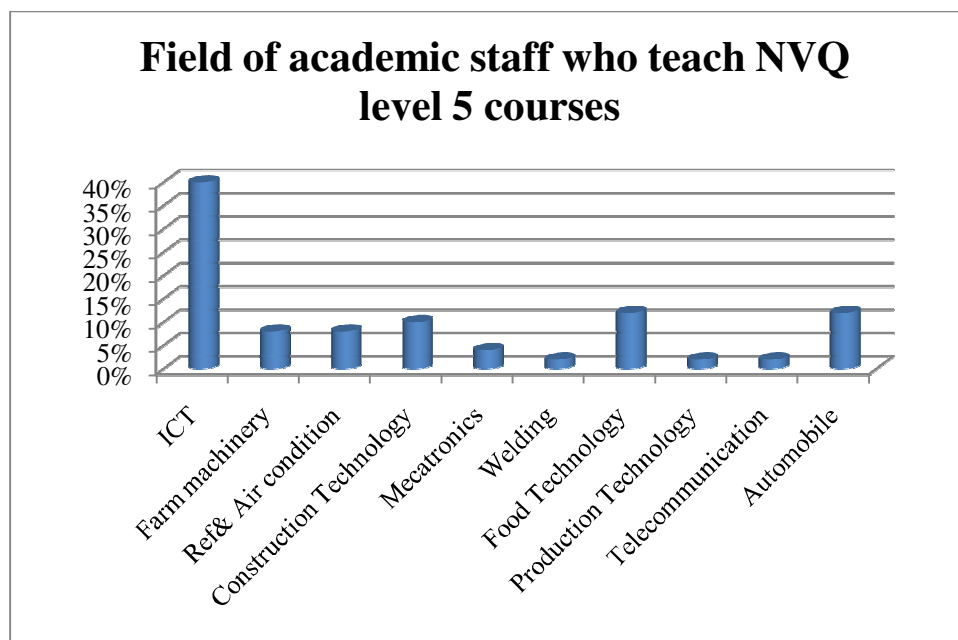


**Figure: 4.18 Adequacy of staff (According to Students)**

Majority of the responses the researcher has received are from lecturers of ICT courses. Below table and figure show this situation.

**Table: 4.21 Field of academic staff who teach in NVQ Level 5 courses**

Field	Percentage
ICT	40%
Farm machinery	8%
Ref & Air conditioning	8%
Construction Technology	10%
Mecatronics	4%
Welding	2%
Food Technology	12%
Production Technology	2%
Telecommunication	2%
Automobile	12%
Total	100

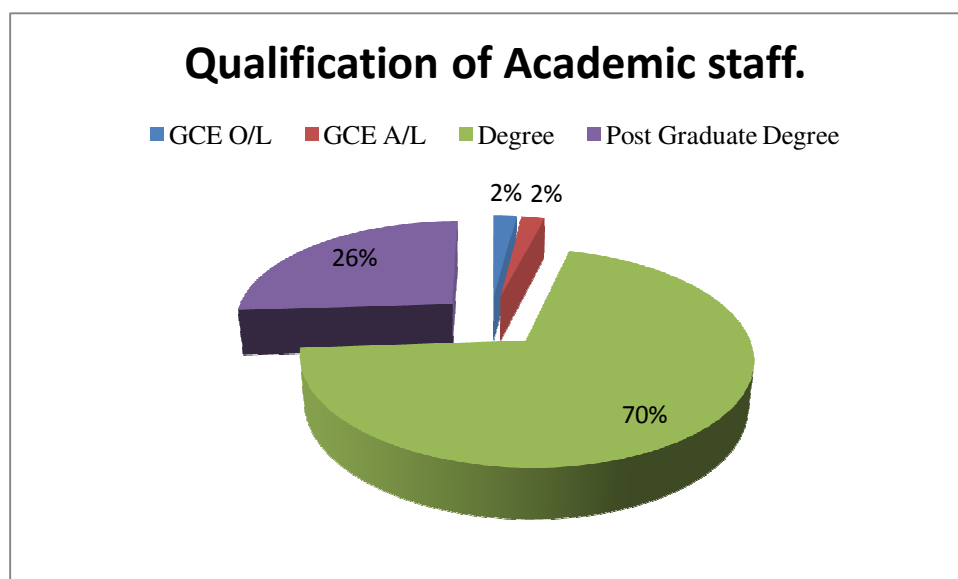


**Figure: 4.19 Field of academic staff who teach NVQ 5 courses**

According to figure 4.17 and 4.18, it is clear those have not adequacy academic staff in COTs and not spread equal academic staff in between all courses. Qualification of the academic staff is considered by the question number four and five of the questionnaire given to academic staff.

**Table 4:22 Qualification of Academic staff.**

Academic Qualification	Percentage
GCE O/L	2%
GCE A/L	2%
Degree	70%
Post Graduate Degree	26%
Total	100



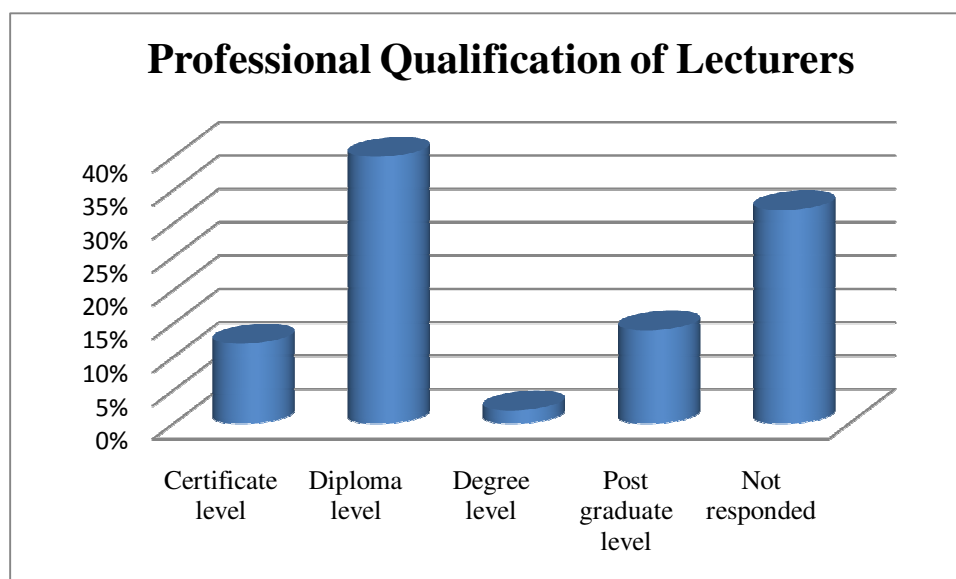
**Figure 4:20 Qualification of Academic staff.**

The percentage of the academic staff who has obtained the degree is seventy. Little percentage of staff has got post graduate qualifications. In addition, there are lectures that possess O/L and A/L qualification.

(2%).According to these figures there must be a process for upgrading the academic qualification of lecturers.

**Table: 4.23 Professional Qualifications of Lecturers**

Professional Qualification	Percentage
Certificate level	12%
Diploma level	40%
Degree level	2%
Post graduate level	14%
Not responded	32%
Total	100



**Figure: 4.21 Professional Qualifications of Lecturers**

Forty percent of lectures have earned diploma level professional qualification. It is the highest. Two percent of lecturers have earned degree level professional qualification .According to above analysis, professional qualification of the lecturers must be improved .According to the ideas of students; they have mentioned that some lecturers don't know how to teach their subject properly. **Especially, this allegation is directed to lecturers of web designing and software development. In general, students of ICT coursers complained that some lessons cannot be understood.** Four percent of lecturers who have earned post graduate level qualification has got PG diploma in education .Four percent of lecturers who have earned certificate level qualification have got teacher training qualification from UNIVOTEC. **It is the little percentage for technical education. A teacher must get the qualification in the relevant education field.**

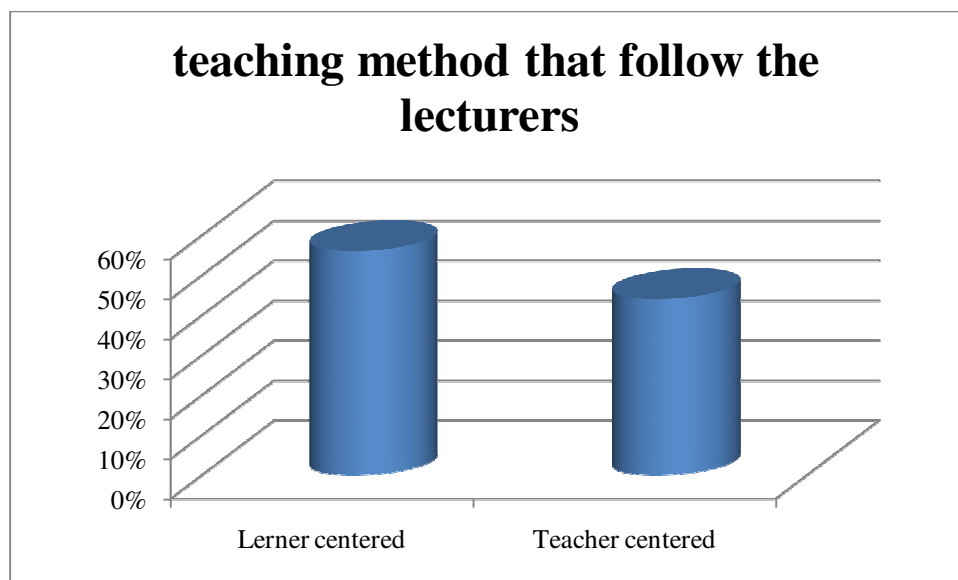
#### 4.6 Teaching Methods

Furthermore, in examining the teaching methods used by lecturers, Question number seventeen of lecturer's questionnaire; they follow learner centered teaching method rather than teacher centered teaching method as shown in the bellow table.

**Table; 4.24 teaching method that is followed by the lecturers**

Teaching Methods	Percentage
Lerner centered	56%
Teacher centered	44%
Total	100%





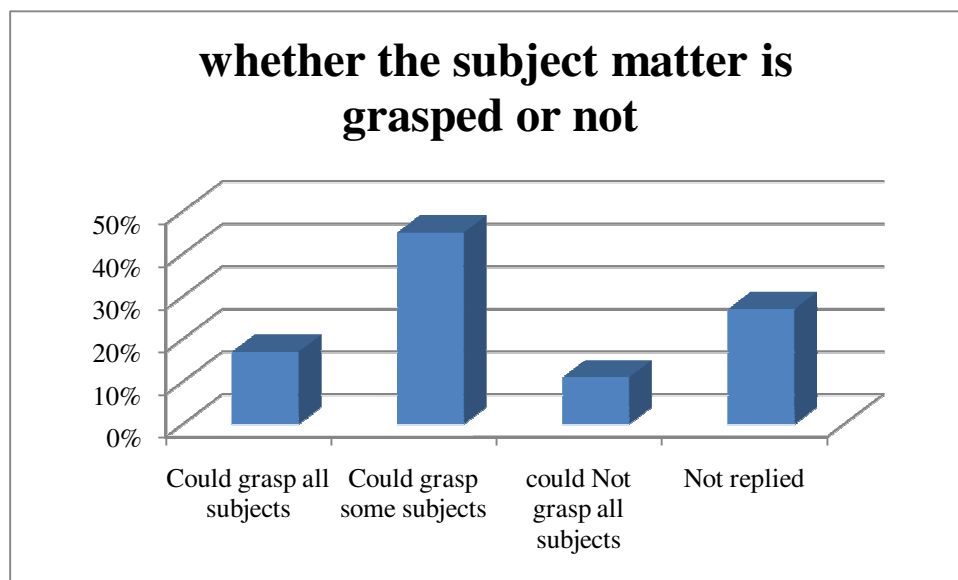
**Figure; 4.22 teaching method that is followed by the lecturers**

In CBT, teacher centered teaching system is not a suitable method because CBT measure the competency standards. But above details show that thirty seven percent of lecturers use teacher centered system. There will be learner centered method in NVQ Courses completely as shown in curriculum. This curriculum puts the high weight learner centered method like Field visit, case studies, lab assignments, and internet tutorials. Although, seventy four percent of students have expressed their ideas that there are many barriers for these activities. .

Researcher examines how the students grasp subject matters.

**Table: 4.25 whether the subject matter is grasped or not**

Whether the subject matter is grasped or not	Percentage
Could grasp all subjects	17%
Could grasp some subjects	45%
could Not grasp all subjects	11%
Not replied	27%
Total	100%



**Figure 4.23 whether the subject matter is grasped or not**

Forty five percent of students have mentioned that they could grasp some subjects and eleven percent of students have mentioned that they could not grasp all subjects. Especially, eighty percent of students who followed computer courses have stated that they could not grasp some subjects like web designing and software development. They noticed that various facts influenced for this. They are weak in English language, lecturers clarifications are not clear and lecturers did not know the syllabus in depth. Academic branch should implement an academic audit to avoid these barriers. TVEC is implementing academic audit for this. They searching for a quality management system, teaching methods, lesson planning etc. According to deputy director (Accreditation - TVEC), Kurunagala, Badulla Ampara COTS are not obtaining QMS yet because weakness of implementation procedures..

#### **4.7 Teaching resource Materials**

In the past few years, there has been a growing tendency among educationalists to shift from the traditional teacher centered teaching to student centered learning. This shift in teaching learning strategy calls for the use of verity of learning resources appropriate to the new strategy. Resource materials that assist the teacher can be classified in to planning documents and classroom materials. These planning documents include:

1. Syllabus
2. Lesson plan
3. Student Assessment Plans
4. Example Test Questions.
5. Teachers Guides

### Lesson Plan

A lesson plan deals with the details of activities of the teacher and students during a period of instruction. It is a blueprint that spells out the strategy to be followed by the teacher in the classroom so that recourses, time, personal and content are organized to maximize learning. According to assistant director (Accreditation- TVEC) and director academic not satisfied with lesson plans of lecturers in COTs though they had prepared the lesson plan. Because some of them are not prepared systematically and some have been prepared suddenly to face the audit.

### Student Assessment plan

This is very important for teaching delivery system. A lecturer must have a plan that examine the knowledge step by step because it guide a systematically assessment system. CBT curriculum guides that because it includes assessment and weighting system. But some of them have not formal assessment plan as stated by Assistant Director (Accreditation- TVEC) that he had experienced from academic audit

### Teachers Guides

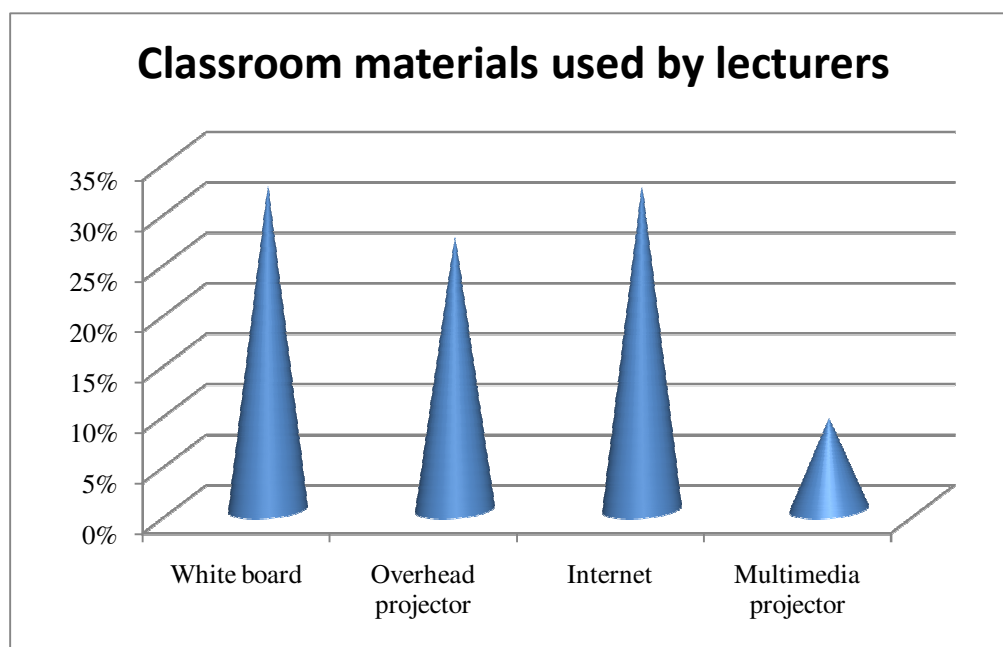
Teachers guide or manuals provide guidance and direction to the teachers towards their day today classroom activities. Teachers guides are used in NVQ 3 and 4 but these are not in use in NVQ level 5 courses. According to four percent of students, lecturers do not know the depth in the syllabus. So they teach some parts of syllabus. Hundred percent of Lecturers expressed that they do not have teachers guides. Especially they noticed that they want teacher's guides because syllabus is not adequate for teaching. Syllabus mentions only the topics that should be learnt for a module and not in depth. **Lecturers, and directors had stated it as a deeply requirement of teacher's guides.** Lecturers have mentioned that in question number 11 and 15 of questionnaire for lecturers.

### Classroom materials

Question number eighteen of lecturer's questionnaire explains about classroom materials which are used by teachers.

**Table; 4.26 Classroom materials used by lecturers**

<b>Materials</b>	<b>Percentage</b>
White board	32%
Overhead projector	27%
Internet	32%
Multimedia projector	9%
Total	100



**Table; 4.24 Classroom materials used by lecturers**

According to above details there is a low attention for electronics instrument. Lecturers should use electronic instrument to ensure the learning of subject matter by students. There is an old Chinese saying that:

I hear – and forget

I see – and remember

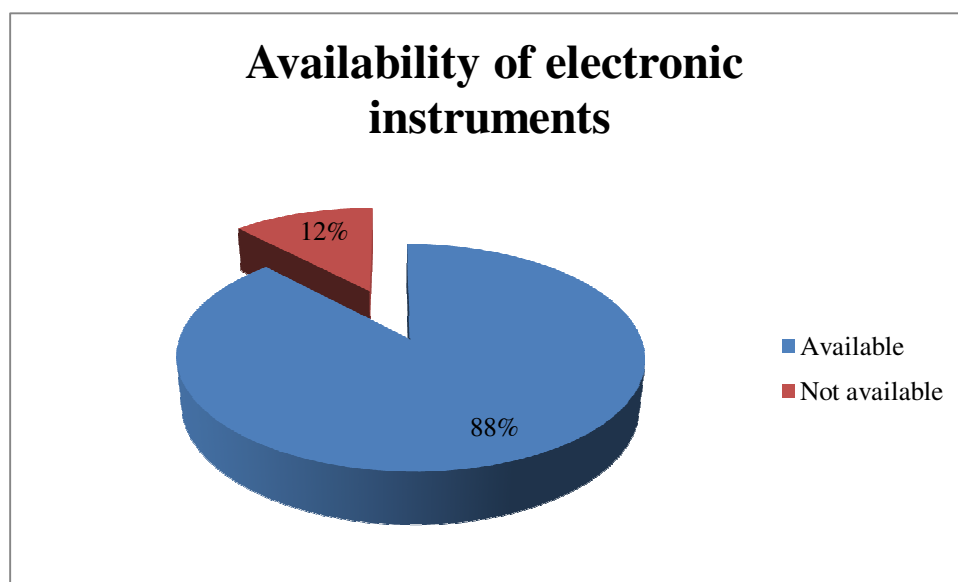
I do – and understand

Students can understand and remember by doing something and seeing something. **Therefore lecturers should teach by using electronic instrument such as overhead projector, multimedia projector.**

Also, researcher examines whether the electrical instrument is available in the institution. Lecturers have replied to question number twenty as shown bellow.

**Table: 4.27 Availability of electronic instruments**

Available or not	Percentage
Available	88%
Not available	12%
Total	100



**Figure: 4.25 Availability of electronic instruments**

In this, twelve percent of lecturers expressed that they do not obtain such electronic instruments. Because some times that instrument is limited (E.g.: overhead projector). Some time they cannot get them easily. **However there should be a way to use these instruments for the lecturers.**

### **Student Record Book**

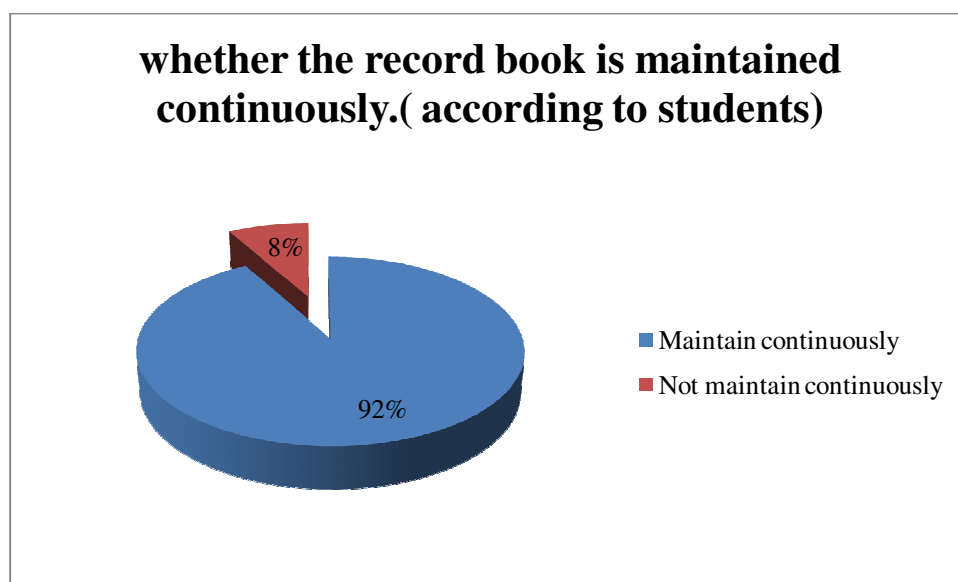
In NVQ Level 5 coursers lecturers must maintain the student record book. All details of student are included in this book. Some of them are mentioned below.

1. Details of Institutional Training
2. Details of Industrial Training
3. Record of continuous Assessment
4. Details of summative Assessment.

Lecturers should handover this book to students after filling above details. Assessor refers to these records for final assessment. Therefore, this record book is more important in deciding whether student is competent or not. Researcher asked from students whether the record book is maintained properly and continuously by lecturers. They answered as mentioned bellow.

**Table: 4.28 whether the record book is maintained continuously. (according to students)**

Maintained or not maintained	Percentage
Maintained continuously	92%
Not maintained continuously	8%
total	100



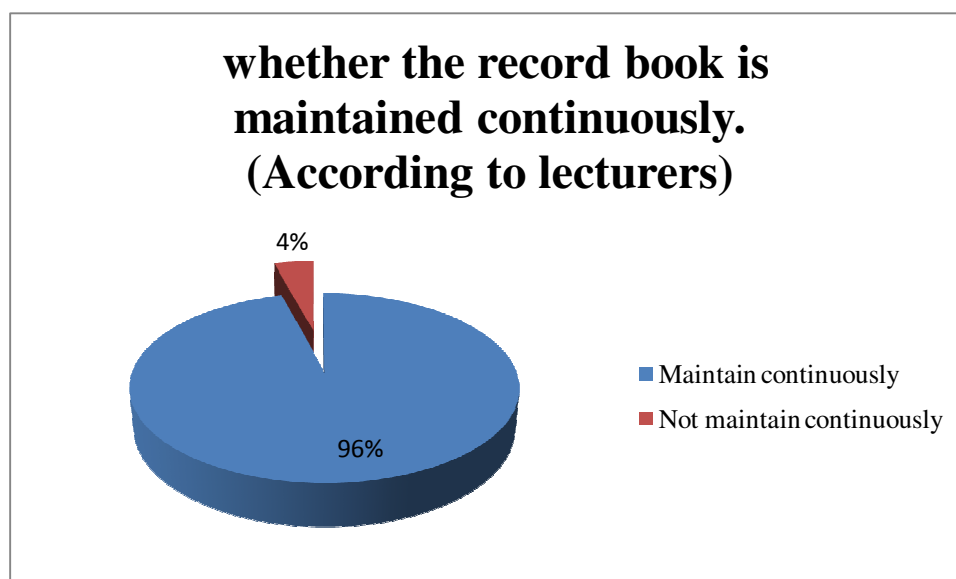
**Figure: 4.26 whether the record book is maintained continuously.( according to students)**

Ninety two percent of students stated that it is maintained continuously. Eight percent of students stated that it is not maintained continuously. Students who stated that it is not continuously maintained, explains that it is completed by the lecturer in end of the course. In addition, students express that lecturers write down some notes on a paper and include them in the record book end of the course. Lecturers who answer this say that the students get the record book later (after five or six months). Some students stated that they did not know about their assessment marks and also they did not discuss about assessment details. Students will attend to the correct path through the feedback of lecturers.

According to lecturers' questionnaire, ninety six percent of lecturers have expressed that they continuously maintain the students' record books. This situation shows as follow.

**Table: 4.29 whether the record book is maintained continuously. (According to lecturers)**

Whether the Record book is maintained or not	Percentage
Maintained continuously	96%
Not maintained continuously	4%
Total	100



**Figure: 4.27 whether the record book is maintain continuously. (According to lecturers)**

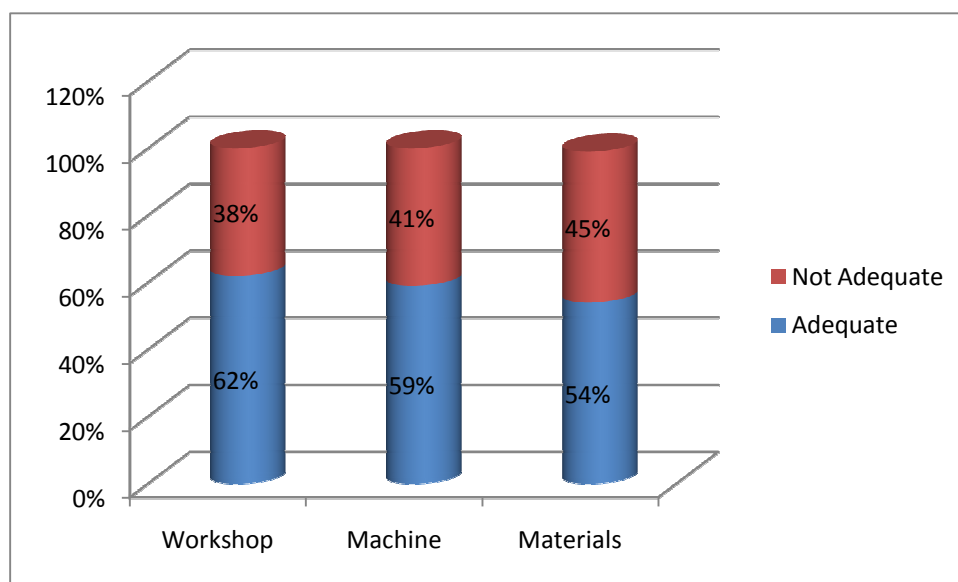
Four percent of lecturers who stated that they do not maintain the record book continuously are visiting lecturers. It is not their responsibility. But visiting lecturers also should know why this record book is maintained. They should be able to enter their marks in this record book. There are many weaknesses in maintaining the record book by lecturers, though students and lecturers stated that it is continuously maintained.

#### **4.8 Physical resources for teaching learning process**

Physical resources are the important parts and parcels of the teaching learning process in vocational training system. Researcher concerned workshops, machines and materials as physical recourses. NVQ system based on skill standards. Therefore, above recourses are very meaningful in the developing of skills. Researcher searched about use of physical resources by lecturers and students. According to students responses for Question number twelve, bellow table and figure are arranged by researcher.

**Table: 4.30. Adequacy of physical resources (According to students)**

Recourses	Adequate	Not Adequate	Total
Workshop	62%	38%	100
Machine	59%	41%	100
Materials	54%	45%	100



**Figure: 4.28adequacy of physical resources**

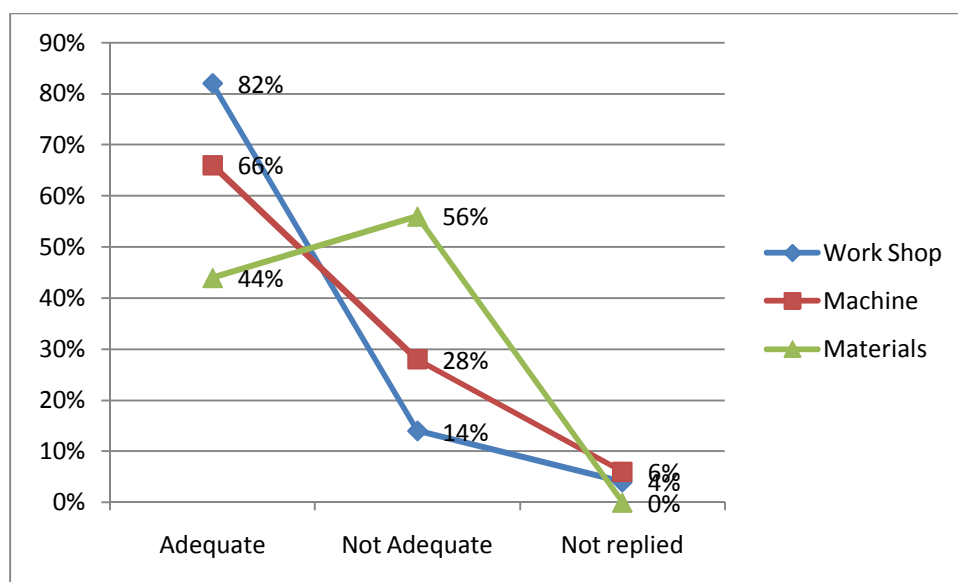
Thirty eight percent of students expressed that workshop facilities are not adequate. Forty one percent of students stated that machines are not adequate and Forty five percent expressed that material (like that modem, scanners,) is not adequate.

Below figures shows lectures answers for adequacy of physical resource.

**Table: 4. 31. Adequacy of physical resources (According to lecturers)**

Resources	Adequate	Not Adequate	Not replied	Total
Work Shop	82%	14%	4%	100%
Machine	66%	28%	6%	100%
Materials	44%	56%	0%	100%





**Figure 4. 29. Adequacy of physical resources (According to lecturers)**

According to lecturers answer material is the main problem in Cots. **In this lecturers and students expressed modem. Plugs. A4 sheets, transparency sheets etc as materials. Specially, they noticed shortage of computer lab as workshops. They mean shortage of computers as shortage of machines.**

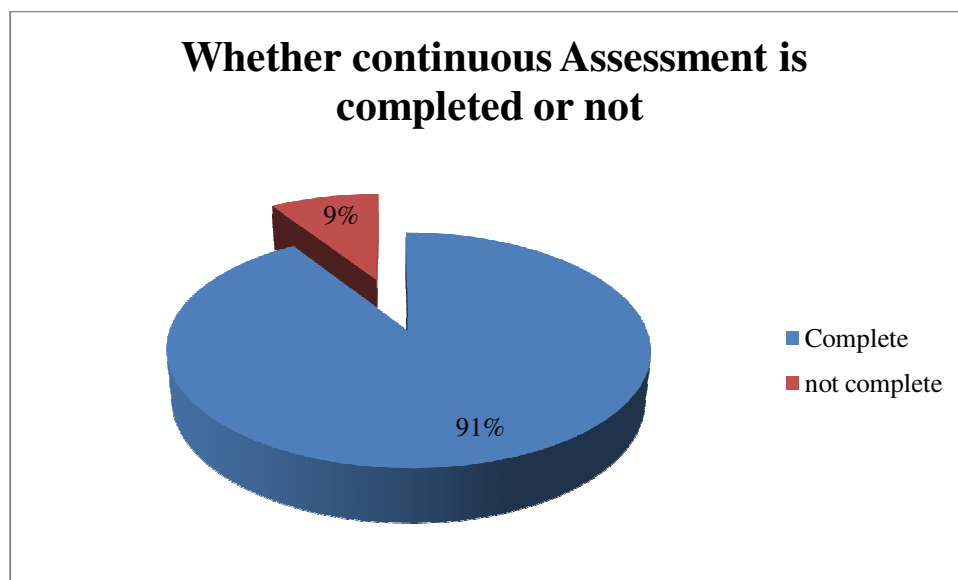
#### 4.9 Testing and Evaluation System

Two stages of assessment are employed for NVQ levels 5 Qualification. Modular based assessment (Formative and summative) are conducted for the assessment of learning outcomes as specified in curricula.

Formative Assessment is continuous. Researcher searched about continuous assessment which is completed in between course duration in COTS. Students should complete all the continuous assessments before the summative assessment that is held by examination branch in DTET. Answers received from students are analyzed below.

**Table 4.32 Completing the continuous Assessment**

Whether Complete or not	Percentage
Complete	91%
Not complete	9%
Total	100%

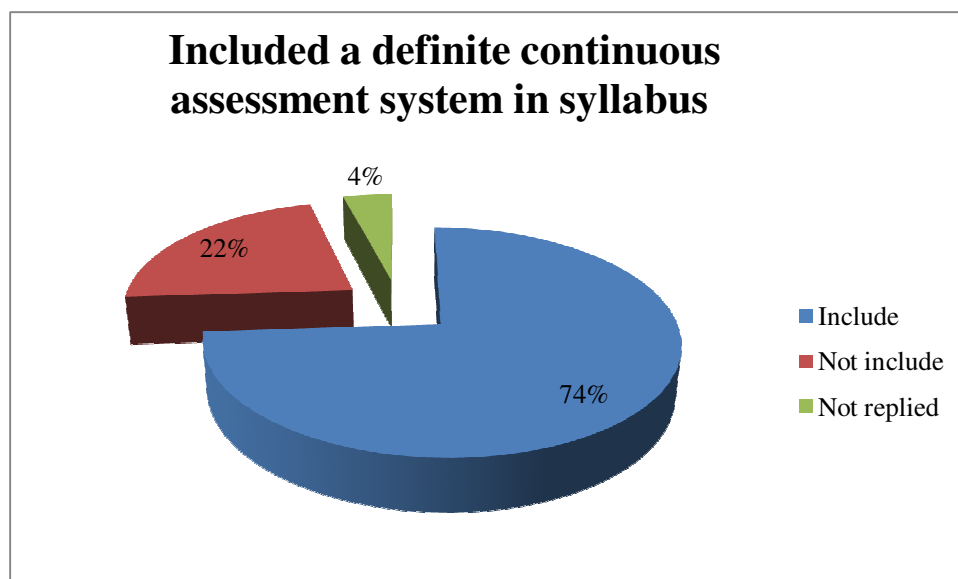


**Figure 4.30 whether the continuous Assessment is complete or not**

Ninety one percent of students had completed continuous assessment. But five percent of students had not completed. Students who had not completed continuous assessment expressed many facts for not completing it. They are falling ill, inability to understand English etc. Answers that got from lecturers for question number 22 are mentioned bellow.

**Table: 4.33 A definite continuous assessment system is included in syllabus**

Included or not included	Percentage
Included	74%
Not included	22%
Not replied	4%
Total	100%



**Figure: 4.31 included a definite continuous assessment system in syllabus**

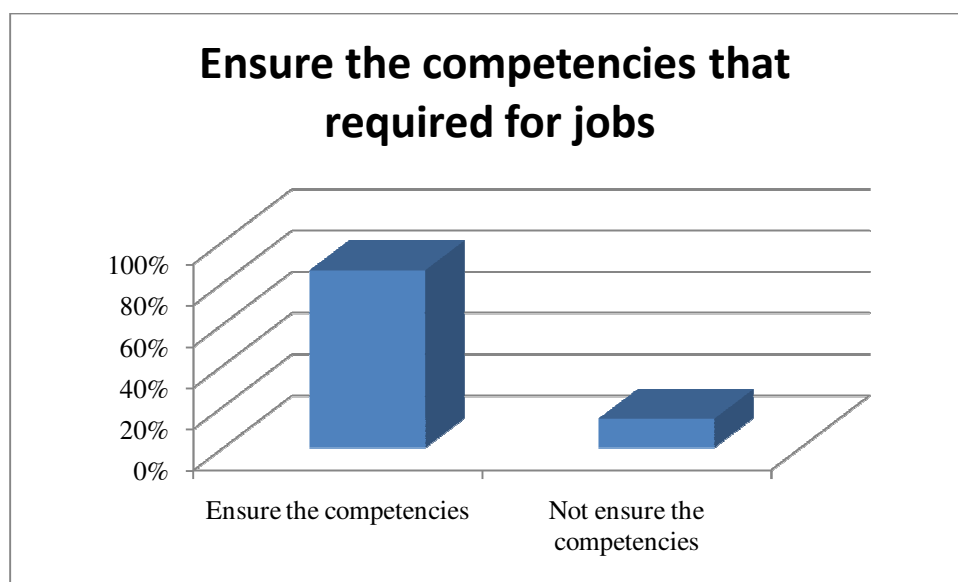
Seventy four percent of lecturers stated that continuous assessments are included in the curriculum definitely. This matter was ensured in examining the curriculum by researcher. There is no indication that how many assessments should be done for a module. If assessment and weight age is given on written tests, practical tests, individual project and Presentation (as mentioned in ICT curricula). Such this situation, one can do one assessment for one module and another can do several assessments for a module. But this assessment is not done practically very much. Sometimes, though lecturers give continuous assessments marks on relevant documents students say that those assessments were not done genuinely. Lecturers who answered them mentioned that according to TVEC Rules, assessments should be done many times until the student achieves the competency. **In such an opportunity, they try to give pass marks for these students.**

In NVQ system, assessments which are done by students should be secured till final assessment by lecturers. Some students stated that lecturers are not securing these assessments for that purpose. **Therefore, lecturers should take action to prevent these issues.**

Analysis details which were got for question number twenty four of lecturer's questionnaire are mentioned as follows.

**Table: 4.34. Ensure the competencies that required for jobs by continuous assessment**

Ensure or not ensure	percentage
Ensure the competencies	86%
Not ensure the competencies	14%
Total	100%



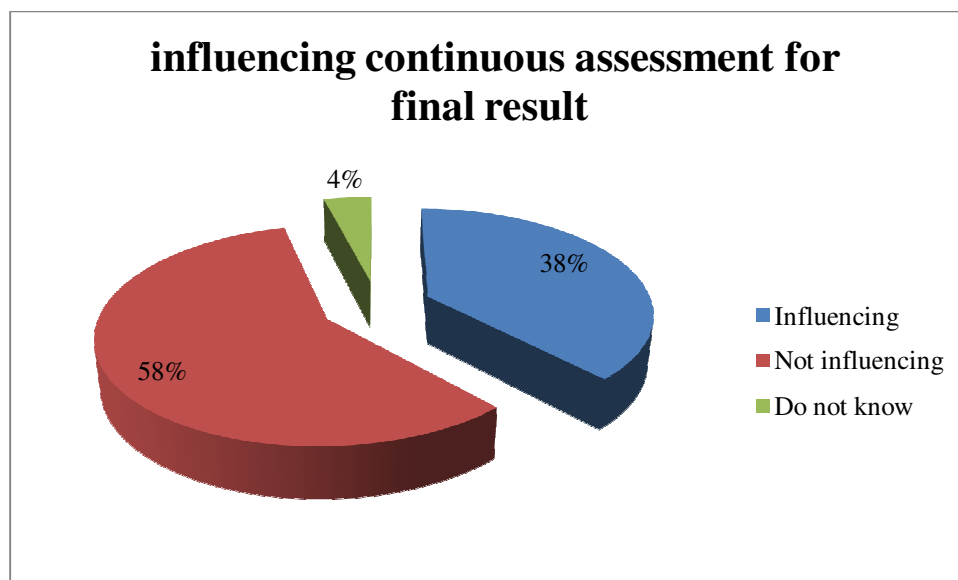
**Figure: 4.32. Ensure the competencies that required for jobs by continuous assessments**

Fourteen percent of lecturers expressed that competencies are not assured by continuous assessments because all of them are not practical assessments. They mean that creating more practical assessments for continuous assessment ensures the competencies.

Researcher has analyzed those answers got for question number twenty six as shown bellow.

**Table: 4.35 influencing continuous assessment for final result**

Influencing or not	Percentage
Influencing	38%
Not influencing	58%
Do not know	4%
Total	100%



**Figure: 4.33 influencing continuous assessment for final result**

If fifty eight Percent lecturers had presented that continuous assessment marks are influencing final assessment because they mean that it is influenced for qualifying to face the written examination. Thirty percent of lecturers have mentioned that it is not influencing for final assessment because they mean that it is not influencing for adding the final marks. According to

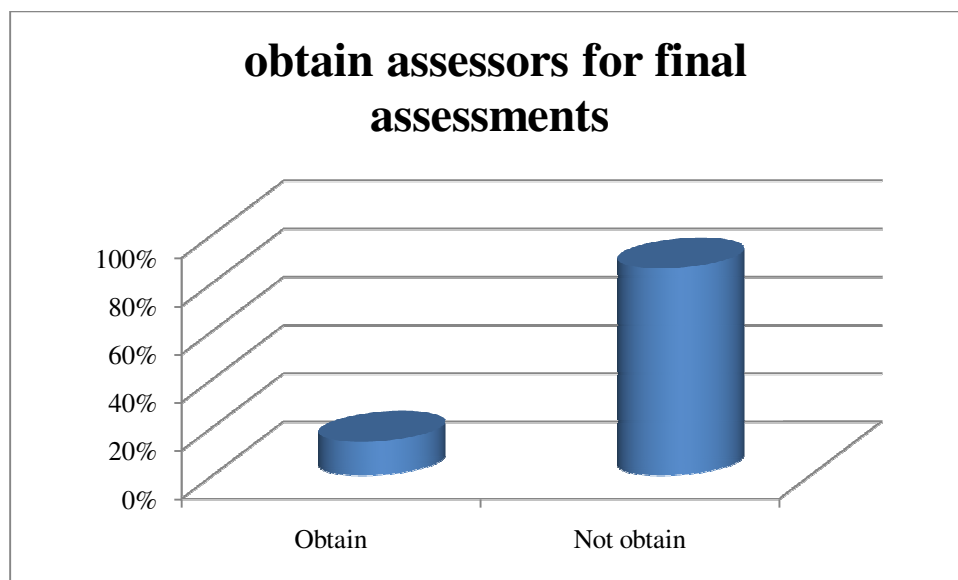
Question number twenty of directors' questionnaire, they presented the opinion that these marks should be added to define the final result as 50% (Fifty percent of continuous assessment marks and 50% percent of written examination marks).

#### Final Assessment

According to answer to question number twenty four of director's questionnaire, eighty percent of directors expressed about difficulties of obtaining Assessors for final assessments. This situation is shown by bellow table.

**Table: 4.36 Obtain assessors for final assessments**

Obtain or not	Percentage
Obtain	14%
Not obtain	86%
Total	100%



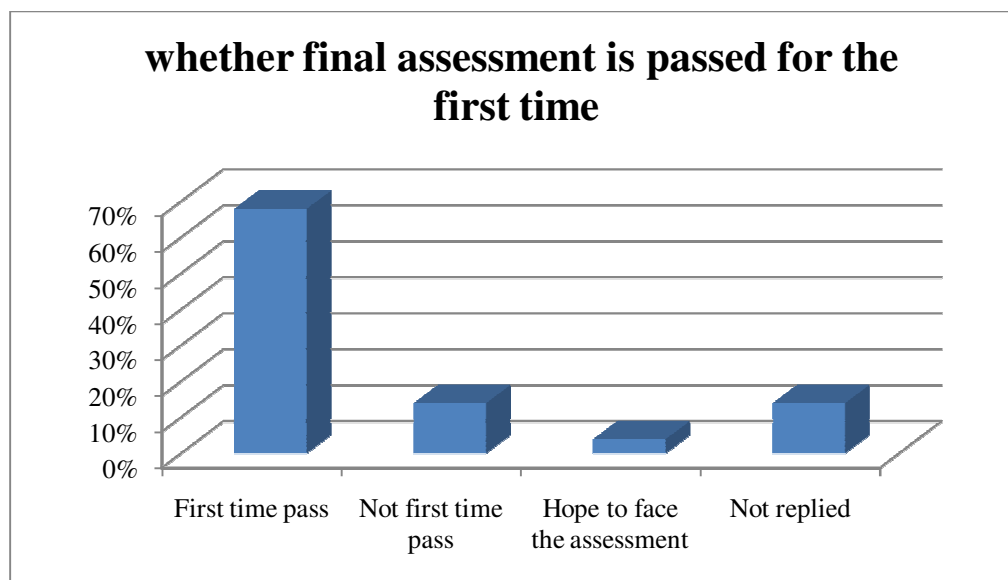
**Figure: 4.334 Obtain assessors for final assessments**

TVEC website has a list of many assessors. But sometimes they do not like go to distant places because they are getting little payment for this duty. According to staff officer of examination branch, assessors who have registered in TVEC are not adequate for final assessments (question number 22).

Researcher searched about the students who have passed the final assessment for the first time by student's questionnaire. Analysis which made up this row data is shown as bellow.

**Table 4.37 whether the final assessment is passed for the first time**

Whether passed for the first time or not	Percentage
passed for the First time	68%
Not passed for the first time	14%
Hope to face the assessment	4%
Not replied	14%
Total	100%



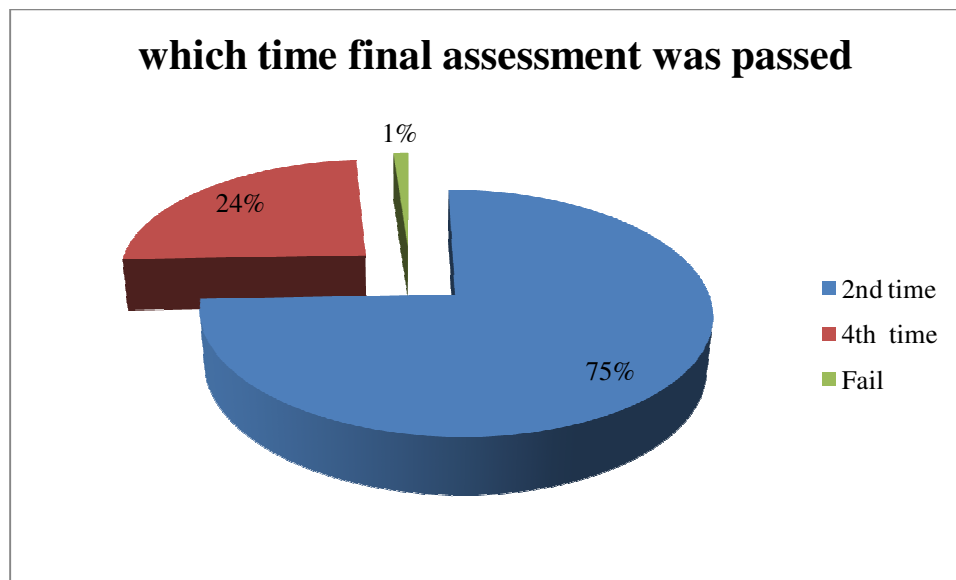
**Figure: 4. 35 whether final assessment is passed for the first time**

According to above analysis there are fourteen percent of students who have not passed for the first time and four percent of students hope to face the assessment (not yet passed).

In addition, researcher examined which time the final assessment was passed. The Analysis of such data is shown as follows.

**Table: 4. 38 which time the final assessment was passed**

which time the final assessment was passed	Percentage
2 <sup>nd</sup> time	67%
4 <sup>th</sup> time	22%
Fail	1%
Total	100%



**Figure: 4. 36 which time final assessment was passed**

In examining the above details; there are students who did not first time pass and 2<sup>nd</sup> time, 4<sup>th</sup> time pass and fail regarding final assessment. According to question number twenty fifth of students questionnaire, matters of fail the students as shown as bellow.

1. Deficiencies of held in final assessments (change of the final assessment held in dates quickly)
2. final assessment was held the after industrial training (forgot the subject matters)
3. Held the final assessment by not qualified assessors (not suitable to relevant field)
4. Not making the students aware of the final assessment by lecturers (about collect the continuous assessment, complete the student record book)

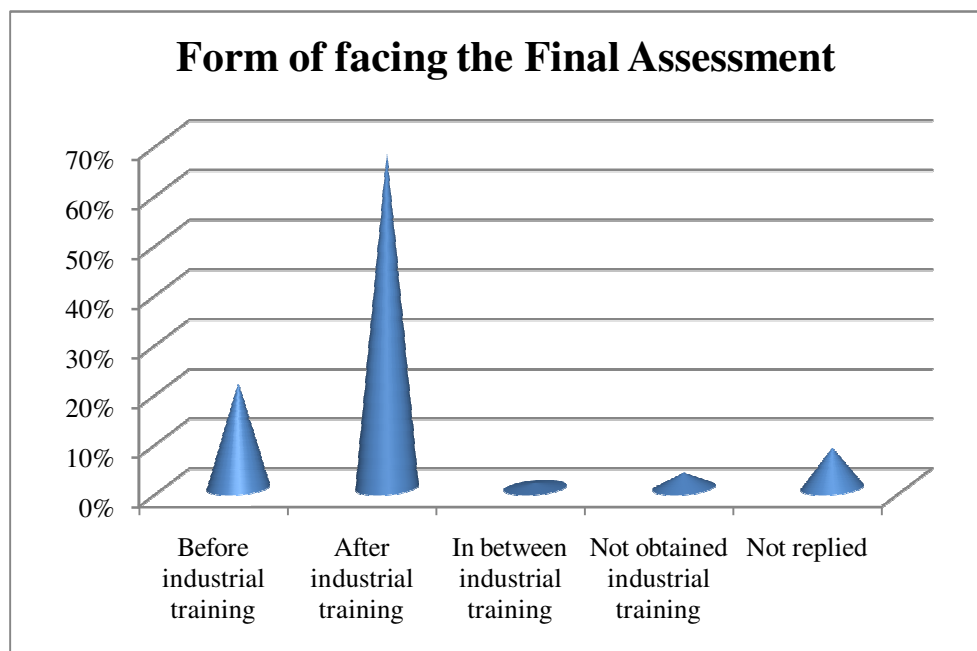
According to question number 4 and 5 of assessor's questioner hundred percent of assessors had completed qualification that required by TVEC. Also, hundred percent of assessors have participated training that held by TVEC according to question number 7 of assessors questioner. But, practically the statement of the students that there are not suitable assessors for the relevant field is true.eg; Assessors of ICT field is not suitable for software development and web design equally. Then they are not suitable for assess the software development part in ICT field.



Details of analyzed data for twenty sixth question of student's questioner are shown as below

**Table: 4.39 form of facing final assessment**

Before or after industrial training	Percentage
Before industrial training	21%
After industrial training	67%
In between industrial training	1%
Not obtained industrial training	3%
Not replied	8%
Total	100%



**Figure: 4.37 form of facing the final assessment**

TVEC decided that students should face the final assessment after industrial training. Three percent of students expressed that they did not obtained the industrial training because they were employed. Sixty seven percent of students expressed that they faced the final examination after industrial training.

According to students ideas that they had failed because facing the final assessment after the industrial training, researcher examine about information of that situation by below table.

**Table 4.40 Relationship between industrial training period and result of Final**

**Assessment**

industrial training period Before or After the final assessment	Passed Percentage
Before	64%
After	84%

Students who faced to final assessment before the industrial training have passed sixty four percent. It is the matter of concern.

According to question number twelve of assessor's questioner ninety eight percent of assessors expressed that they are not assesses the students in accredited centers because many courses and COTs were not accredited yet. Some time it will be a matter for fail the assessments.

**According to question number fifteen of assessor's questioner, 99% of Assessors stated that final assessment is not doing as planned in pre assessment. It can be a difficult for students.** Assessors noticed their ideas about facts for failing the final assessments as shown below.(according to question number 20)

1. Not completed the student's project.
2. Weakness of student's practical knowledge.
3. Not presented the written evidence.
4. Holding the final assessment after long term that is end of the industrial training.
5. Holding the final assessment later.
6. Not obtaining the industrial training duly.

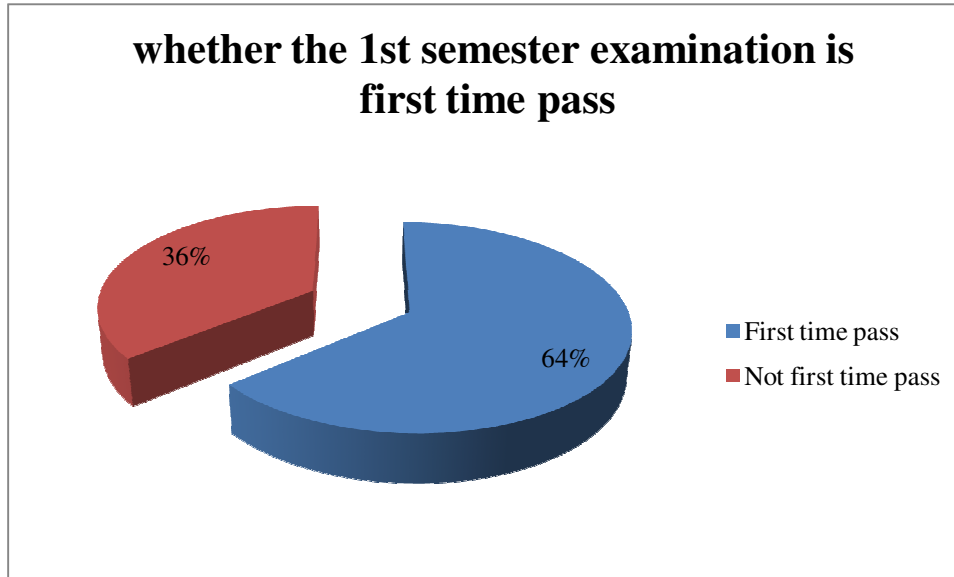
**Academic branch should avoid the facts from 1 to3 by academic audit. Testing and evaluation unit should avoid the facts from 4 to 5 by a formal process.**

**Written test**

Testing and evaluation unit is conducting two written examinations for semester one and semester two. Researcher examines result of 1<sup>st</sup> semester and 2<sup>nd</sup> semester separately. Details of 1<sup>st</sup> semester results that were obtained through student questionnaire are shown below.

**Table: 4.41 whether the 1<sup>st</sup> semester examination is first time pass**

First time pass or not	Percentage
First time pass	64%
Not first time pass	36%
Total	100%



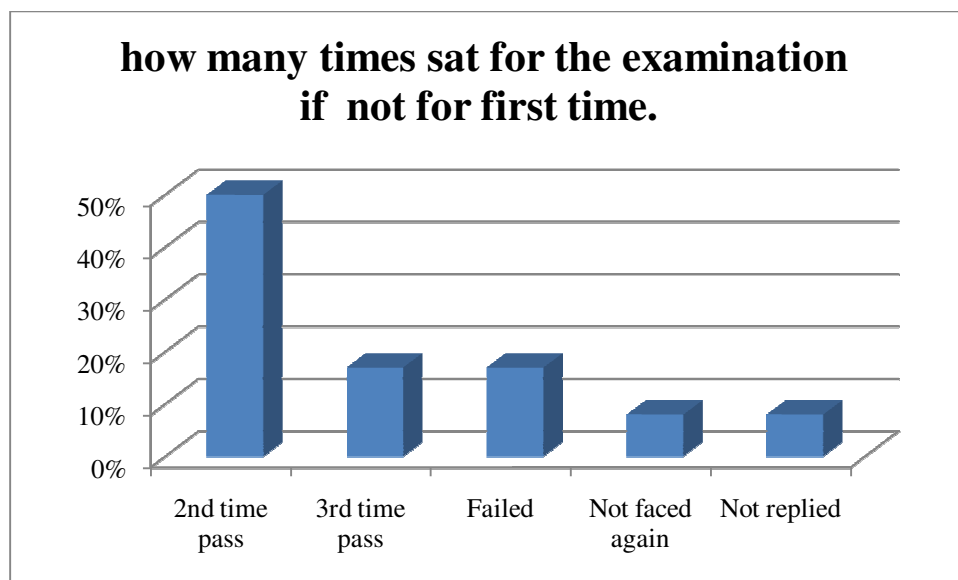
**Figure: 4.38 whether the 1<sup>st</sup> semester examination is first time pass**

Sixty four percent students expressed that they passed the 1<sup>st</sup> semester examination in first time. Thirty six percent students have not passed the first time.

In addition to, Researcher examines how many times pass the examination if they have not first time passed.

**Table: 4.42 how many times sat for the exam if not for the first time.**

how many times	Percent
passed for the 2 <sup>nd</sup> time	50%
passed for the 3 <sup>rd</sup> time	17%
Failed	17%
Not faced again	8%
Not replied	8%
Total	100%

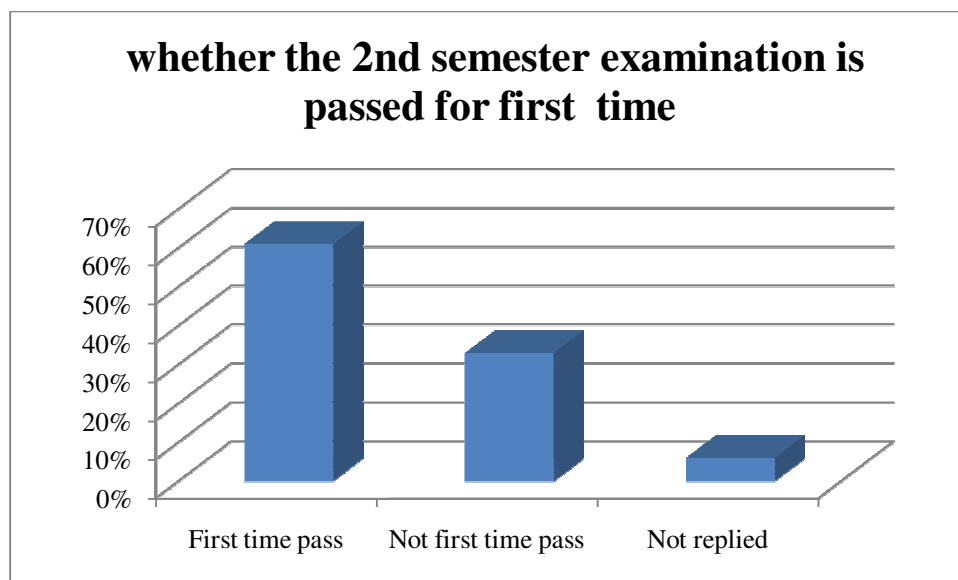


**Figure: 4.39 how many times pass the examination if they have not first time passed.**

Details of 2<sup>nd</sup> semester results which were obtained through student questionnaire are shown bellow.

**Table: 4.43 whether the 2<sup>nd</sup> semester examination was passed for the first time**

First time passed or not	percentage
First time passed	61%
Not first time passed	33%
Not replied	6%
Total	100%



**Figure: 4.40**whether the 2<sup>nd</sup> semester examination is passed first time

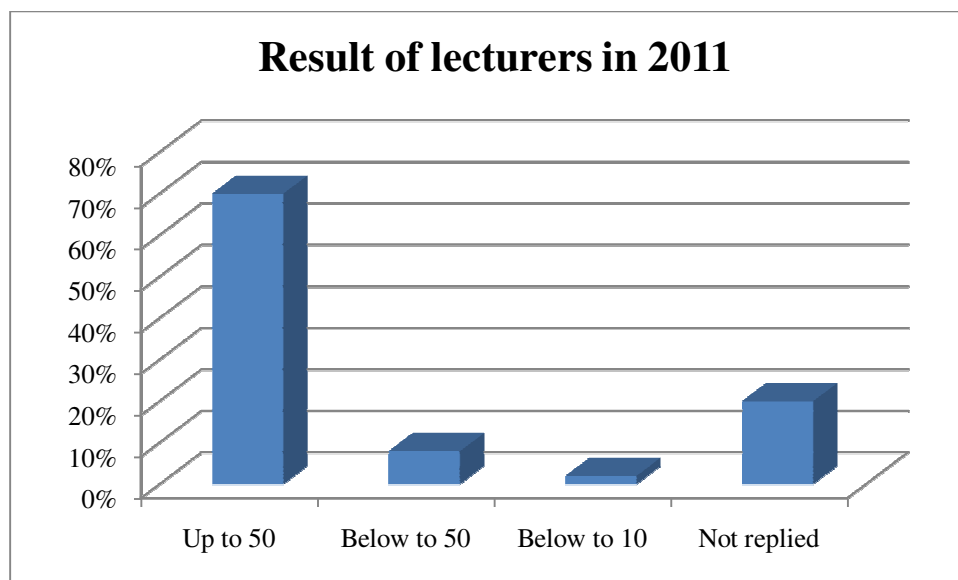
Thirty three percent of students have not passed the 2<sup>nd</sup> semester examination for the first time.

Above details show students who have passed the semester wise examination. According to students responses above thirty six and thirty three percent of students have not passed semester one and two examination for the first time. But secondary data shows sixty percent of students have not passed the second semester because they are the population. However primary data and secondary data show that failure rate in written examination was high. Also secondary data show that competent rate is not high (67%).

In addition, researcher concerned about results of subjects. They are as shown below.

**Table: 4.44 Result of lecturers in 2011**

Pass rate	Percentage
Up to 50	70%
Below to 50	8%
Below to 10	2%
Not replied	20%



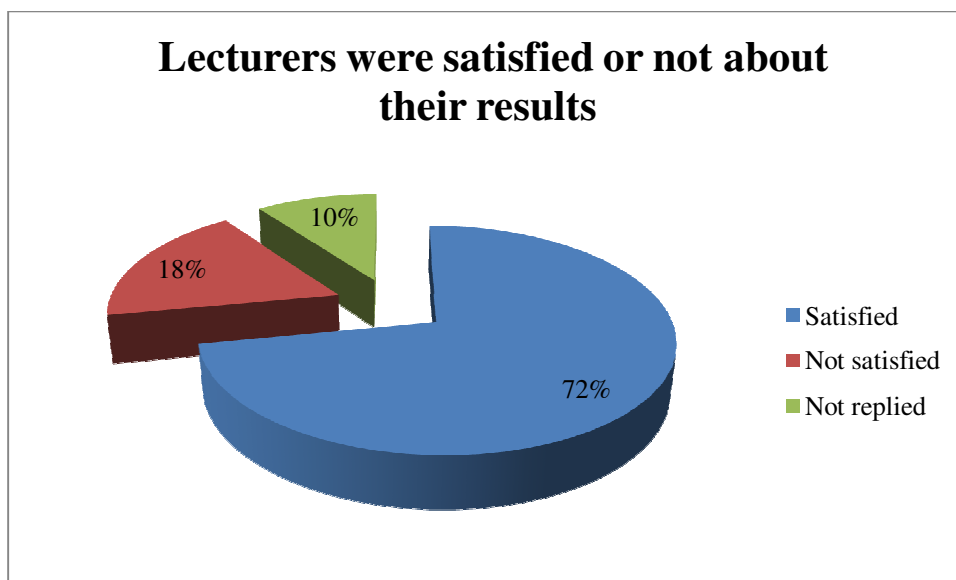
**Figure: 4.41 result of lecturers in 2011**

Seventy percent of lecturers have obtained up to 50 per cent of results for their subjects. Lecturers who obtained below 50 percent and below 10 percent are indicated in between.

According to question number 30 of lecturer's questionnaire, researcher examined that lecturers are satisfied or not about their results. They are shown below.

**Table: 4.45 lecturers were satisfied or not about their results**

Satisfied or not	Percentage
Satisfied	72%
Not satisfied	18%
Not replied	10%
total	100%



**Table: 4.42 lecturers were satisfied or not about their results**

Seventy two percent of lecturers are satisfied about their results. But eighteen percent of lecturers are not satisfied about their results. Also, above details ensured the lower pass rate of students in 2011.

According to 25<sup>th</sup> question of COT directors questionnaire and 32<sup>nd</sup> question of lecturers questionnaire (What the matters are for lower pass rate), written test shows below weakness.

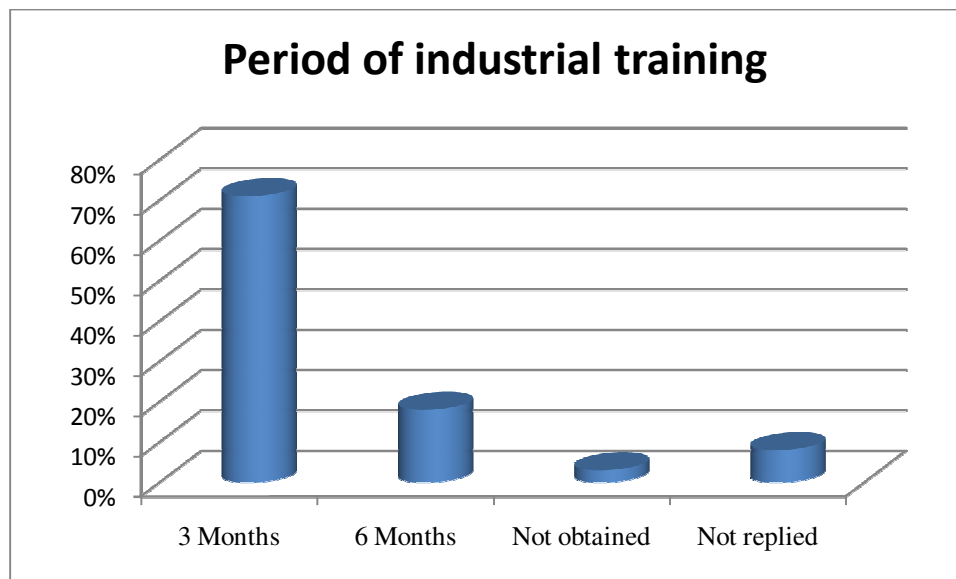
- a) The whole syllabus is not covered and it is not of better stranded.
- (b) There is not a better relationship between the paper setters and the lecturers.
- (c). Though the moderation of papers is done by the TVEC; there are instances that the testing and evaluation unit in the DTET employs the lecturers to moderate the papers
- (d) The examination of the 1<sup>st</sup> semester and 2<sup>nd</sup> semester is done between short periods.

#### **4.10. Industrial Training**

According to TVEC rules, Students should get the industrial training for three month, after written examination. Researcher examines about industrial training from students by students questionnaire (question number 27).

**Table 4.46 Period of industrial training**

<b>Period</b>	<b>Percentage</b>
3 Months	71%
6 Months	18%
Not obtained	3%
Not replied	8%
Total	100%



**Figure 4.43 Period of industrial training**

Ninety four percent of students have obtained industrial training for three months as TVEC regulations. Twenty four percent of students have obtained industrial training for six months. According to these students, they had mentioned that it was the wish of industry.

Two percent of students who studied the construction course expressed that they have not obtained relevant training. They have noticed that they got technician level training though they should get the supervisory level training. Also ten percent of students have mentioned that it is a gap between industrial training and final assessment.

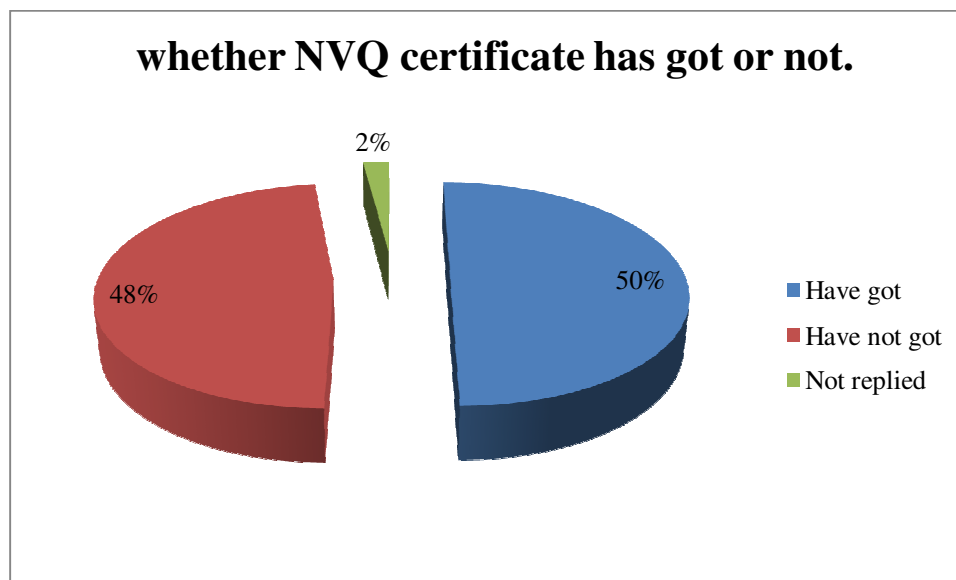


## Awarding Certificates

According to question number twenty eight of student's questionnaire, Analysis of details of the students are mentioned below.

**Table: 4.47 whether the getting or not NVQ certificates.**

Whether got NVQ certificate or not	Percentage
Have got	50%
Have not got	48%
Not replied	2%
Total	100%



**Figure: 4.44 whether NVQ certificate has got or not.**

According to above analysis, forty eight percent of students have not got NVQ certificates .It shows that has lower pass rate of students in NVQ 5 Courses. Also students who passed recently are included in this figure (48%).

## CHAPTER 5

### CONCLUTION AND RECOMMENDATION

The main objective of this chapter is to arrive at conclusions analyzing the results of the questionnaires and interviews held with passed out students in 2011 and the COTs directors, lecturers and assessors. Also researcher concluded analyzing data that obtained by director academic and staff officer in testing and evaluation units. Likewise researcher expected to put forward the recommendation through these conclusions.

#### 5.1Conclusion

1. Generally, Results of NVQ level 5 courses are low in 2011.
2. When concerning the COTS, these results fluctuate according to the courses. For an example overall result has come down in Ampara Hardy COT.
3. Syllabus is not shown in depth for subjects .It mentions only the topics that should be taught. It is a barrier for the teaching learning process, paper setters, and assessors. This is the main problem for teachers.
4. Some Teachers do not give the syllabus to students.
5. There are not teachers guides for NVQ level 5 Courses. Teachers had mentioned about requirement of teachers guides because teachers' guides provide guidance and direction to the teachers towards their day today activities. A teacher's guide may contain the following elements:
  - (a) Employment/ job situation for which the subject/ topic/unit is relevant and useful.
  - (b) The links and inter- relationships of the subject with other subjects (both horizontally and vertically)
  - (c) General and specific objectives.
  - (d) Content materials are arranged in logical sequence.
  - (e) Unit wise teacher's analysis sheet.
  - (f) Sample lesson plan.
  - (g). Assessment plan including model test items.
  - (h) Bibliography and references.

6. According to the information collected through questionnaire, There are problems with regards to the lesson plans written by the lecturers.
7. Students record book is not properly maintained by teachers.
8. Lack of student's English knowledge is a main problem for lower pass rate. Foundation course has been started as solution for this. Teachers, directors and students had mentioned that time duration and content of the foundation course is not adequate. It is used as a solution for this.
9. There is not adequacy of student's entry qualifications for NVQ 5 courses. Mathematics and science are compulsory subjects for learning many courses. For an example, high percentage of students who passed construction technology course is students who followed NCT QS, NCT civil and draftsmanship.
10. Science and Mathematics that are taught in foundation courses are not adequate for learning many courses. Especially duration of those courses and contents of subjects is not adequate.
11. High percentage of teachers and students do not know the difference between NVQ and non NVQ courses. They do not know about especial characteristic of NVQ courses.
12. Duration of the NVQ courses are not sufficient for teaching the subject content of modules. This is the conclusion which was got from teachers, directors and students. Twenty weeks are not sufficient for one semester as stated by teachers.
13. Students have barriers in doing fields visit (due to lack of funds and permissions), lab assignments (lack of necessary equipment), using internet for tutorial (lack of sufficient internet access), in certain COTs.
14. NVQ courses do not have a regular continuous assessment system. It is shown in the syllabus that continuous assessment is separately weighted on written, practical and project works. It is not clearly mentioned how much should be completed when the module is over.
15. Continuous assessment marks is not the criterion to decide the final examination result.
16. Students cannot face final assessments successfully because it is held after the industrial training. Then students could forget subject matters.
17. It is not easy to get assessors for final assessments .Because there is not adequate number of registered assessors in TVEC and their payments are not adequate.
18. Assessors knowledge of the subject matter is not sufficient for some assessments because they have not sufficient practical knowledge and the syllabus is not covered in depth.
19. Some time final assessments are not doing as planned in pre assessment.

20. There is a gap between industrial training and final assessment. As the final assessment is designed to test the competencies they should achieve, students need training for them to improve their skills which are relevant to their training field.
21. Shortage of teachers has influenced in conducting some courses. For an example, Ampara Hardy COT faced this problem in 2011. There is a problem in finding visiting lecturers for some courses too.
22. For some subjects, there are not specialized subject lecturers. For an example this has been badly affected to subjects like web developing and software developing.
23. The lecturers do not have professional development programs for their relevant subjects.
24. The lecturers have limited exposure to gain modern technological knowledge although the industry uses it. Therefore, it is difficult to impart that knowledge to the students in COTs as the lecturers are not armed with it.
25. There are instances where several subjects are taught by the same lecturer. It is clear that visiting lectures teach more than one subject in COTs.
26. There are weaknesses in the preparation of the final examination question papers.
- (a)The whole syllabus is not covered and it is not of better stranded.
  - (b)There is not a better relationship between the paper setters and the lecturers.
  - (c).Though the moderation of papers is done by the TVEC, There are instances that the  
Testing and evaluation unit in the DTET employs the lecturers to moderate the papers
  - (d) The examination of the 1<sup>st</sup> semester and 2<sup>nd</sup> semester is done between short periods.
27. Course accreditation is not functioning properly
28. Course supervision is also not conducted properly. Though the supervision is done by TVEC, the attempt made by the DTET for supervision and feedback is not sufficient.
29. There is a tendency of not getting sufficient physical resources when ever needed to conduct these courses properly.
30. Quality Management system is not established by some COTs.(like kurunagala, badulla Ampara (COTs).

**Ideas of students as a result of answers for 35<sup>th</sup> question (what are the factors for lower pass rate)**

1. Poor attendance
2. Teacher centered learning methods.
3. Not fully covered the all syllabus
4. Changed the syllabus in many times
5. There are not getting suitable industrial training on time

## 5, 2 Recommendation

1. Reasons for lower pass rate should be eliminated
2. Specific reasons which are affected to reduce the pass rate related to each course in each college should be eliminated by searching reasons for it. COT directors should take necessary solution on time, in collaboration with the DTET.
3. When updating courses, steps should be taken to prepare the subject content and the topics which should be taught in each module.
4. Teachers should give the syllabus to students in every course. COTs Directors should prepare a systematic way for giving syllabus to students.
5. Teachers guides should be prepared for the lectures of NVQ level 5 courses.
6. A common lesson plan (like Annex iv) must be prepared by academic unit in DTET (with the assistance of TVEC) and implement it in all COTs in the island.
7. Teachers should maintain student's record book properly from the beginning to end and the students should be made aware of their assessment marks. Academic Branch of DTET should provide record books at the beginning of the course.
8. English should be included as a subject in the syllabus of each course. The duration of the foundation course should be extended and its content should be amended to encourage the student to follow it.
9. Student's entry qualifications should be increased to GCE A/L (science or Mathematics stream) or O/L with two credit passes for Mathematics and science.
10. There should be a one year foundation course (including mathematics, science, English and some subjects of the relevant courses) for the students those who do not fulfill the above mentioned educational qualifications, That should be a pre course which should be connected with NVQ level 5.
11. At the beginning of the course, the importance of the NVQ course should be emphasized to the students. This can be done through the career guidance units. Teachers should be made aware of the specialty of its rules and regulations and how it should be implemented.
12. Period of NVQ level 5 courses should be extended to one year (per six month for a semester)
13. All the COTs should be furnished and equipped with necessary facilities such as lab facilities to meet the students needs, computer labs with speedy internet access, field visits should be provided with transportation and necessary permission. **So, Directors of COTs should take necessary action to avoid the above barriers. Furthermore, they must get assistance from DTET to avoid these barriers**

14. Number of Continuous assessment tests per module during the semester should be decided and the form of the test (Practical, projects etc) should also be included in the syllabus. **Academic Branch should get remedies for this by providing rules and regulations (e.g., implementing assessment plan –five assessments per semester) with assistance from examination branch.**

15. Continuous assessment marks should be used as an important factor to decide the final marks of the final written test. Directors presented the opinion that these marks should be added to define the final result as 50% (Fifty percent of continuous assessment marks and 50% percent of written examination marks). It will be influenced to reduce the failure rate of continuous assessments.

According to teachers' it is not practical to do the continuous assessment test until the student achieves the competency. If there is a slow learner it takes a long time. Therefore, there should be an appropriate methodology to make the child competent.

16. Final assessment should be completed before the industrial training. Industrial training should be assessed during the training period and it should be recorded in the students record book whether the student has achieved the competency and this can be considered as a criterion for the student's getting through of the course.

17. There is a necessity to expedite the training of needy and sufficient assessors for the relevant subject fields. This has to be done by the Department of Technical Education and Training in collaboration with the TVEC. **DTET should take an action to increase the payments of assessors with the assistance of ministry of youth affairs and skills development.**

18. When filling the vacancies of the assessors, those who are competent in the relevant field should be appointed and it should be explicitly stated the limitation of the syllabus of the relevant module.

19. Testing and evaluation branch should begin the formal process for doing the final assessment planned time in pre assessment.

20. In addition to NAITA supervision, academic branch should supervise the industrial training with the assistance of subject specialists as a solution for not matching the training with what they have learnt. Testing and evaluation branch should take action to remove the gap between industrial training and final assessment.

21. It is necessary to expedite the recruitment of teachers for the smooth functioning of the NVQ level 5 Courses. At the same time, a database of the visiting lecturers should be established in the department. This should be a role and responsibility of the academic division.

22. Specially, for the teaching of subjects, it is a must to appoint teachers who are competent in the relevant subject field. Immediate reason for this is, though ICT teachers were appointed to

teach in ICT diplomas, there is a problem regarding the knowledge of those teachers pertaining to the fields of software developing and Web developing. **DTET must prepare a procedure for training the lecturers in the relevant education field.**

23. It is compulsory to direct the teachers towards professional development courses relevant to their subject field. This can be done in the country or overseas. It has been a compulsory fact to get overseas training to get the new technology which is spreading internationally. This should not be limited to a training but it should be a process which can be practically implemented in our country.

24. The teacher should be a trainee in the field of industry in order to get the modern technological knowledge in that field. During the course, the student as well as the teacher should be directed to get the experience in the field of industry. For this purpose, bringing the consultants in the industrial field to the institute and accompanying the students to the field of industry and making them aware of the modern technology which is used in the industry. Further information regarding this is mentioned in the researcher's former research report "Employer contribution for Technical Education".

25. According to Educational Psychology, it is not a successful matter for the same teacher to teach several modules in order to fill the vacancies in the cadre. This should be minimized.

26. Necessary steps should be taken to avoid the weaknesses in setting the question papers of the final written examination.

a) The question paper of a specific module should cover the whole syllabus of the module. This problem arises, when getting the paper set by a person who had not studied the whole syllabus in depth and it is better to minimize this. Applications for the paper setters should be called and a reserve of most suitable paper setters should be maintained.

b) Regarding the pattern of setting the question paper, a good rapport between the paper setters and the teachers who are teaching these modules should be created.

c) Setting of question papers and moderation has to be done in a formal manner. This can be formalized by calling applications for question paper moderators and maintaining a reserve of them in the Testing and Evaluation Unit. Moderation of the question paper should be done by a person who is competent in the subject and proof reading must be done by a teacher of English who is well aware of the subject.

d) It is Compulsory to prepare a schedule at the beginning of the relevant year and maintain it to hold the first semester written exam at the end of that semester and the second semester written exam at the end of that semester. They should not be held at two immediate periods.



27. It is essential to implement a feedback program by the academic division which encourages the COTs to formalize the course accreditation process. This accreditation is granted through an audit process of the TVEC and it won't be granted if the conditions are not fulfilled. COT directors should be persuaded to fulfill these needs immediately and necessary guidance and departmental assistance should be extended immediately.

28. It is compulsory to maintain a formal procedure to supervise course affairs. This is already being done by the TVEC and the department should take necessary action to act as the operator of these institutions where these courses are conducted. The academic section of the department should implement a formal plan by which these 9 COTs could be supervised annually. This is more effective if it is done by a team consisting of some officers thus. The educational process is supervised by the academic unit and physical resources are supervised by an officer of the relevant unit and the evaluation affairs are supervised by an officer of the evaluation unit. In this process, customer satisfaction (students) should also be supervised.

29. There should be a formal process to supply necessary physical resources to the Colleges of Technologies. At the beginning of the year, necessary resources to the COTs should be identified and they should be supplied as soon as possible.

30. A methodology should be followed to persuade the Head of the Departments to establish a Quality Management System in the COTs. According to TVEC audit, the COTs do not fulfill all the major criteria in the Quality manual. Therefore, they say that there is still no QMS in the institution. So, the Department should take necessary steps (through Research Division) to persuade the head of the institutions to establish a quality management system in their respective institutions. In this regard, all the staff should be made aware of the quality management system.

In addition to above recommendation, some important suggestion of directors, lecturers and students for remove the matters of lower pass rate in NVQ 5 courses are mentioned in below.

31. Lecturers should get the necessary action for 80% of Students attendants.

32. Lecturers should follow the student centered learning methods many times.

33. Lecturers should cover the all syllabus.

34. TVEC should not change the syllabus in short period.

35. Career guidance unit in COTs must address the students for industrial training on time.

36. COT directors follow the necessary action for held the course committee at least once three months.

## REFERENCES

Colombo plan Staff College for Technician Education 1989 – Aspects of Curriculum for Technician education – Second Edition, 1989, pages 80, 116, 145

Tertiary and vocational Education commission, Sri Lanka, 2008. 5. 23. [www.tvec.gov.lk](http://www.tvec.gov.lk). 2005

Tertiary and vocational Education commission, Sri Lanka, January 2005- NVQ structure in Sri Lanka- operational manual.

Tertiary and vocational Education commission, Sri Lanka, December 2010 – National Competency Standards for Construction Technology. Pages v, vi, 1-4, 44- 49

Tertiary and vocational Education commission, Sri Lanka, June 2011- CBT Curriculum for NVQ Levels 5 & 6 in Information and Communication Technology. Pages iv- xiii, 1-5

ශ්‍රී ලංකා ජාතික කාර්මික අධ්‍යාපන ආයතනය. පළතුරු හා එළවලු සැකසුම්කරු- පුහුණුවන්නාගේ මාර්ගෝපදේශය

ශ්‍රී ලංකා ජාතික කාර්මික අධ්‍යාපන ආයතනය. ගෘහස්ථ විදුලි උපකරණ පිළිසකර කරන්නා- පුහුණුකරුගේ මාර්ගෝපදේශය

NVQs - national vocational qualifications -  
[http://www.businessballs.com/nvqs\\_national\\_vocational\\_qualifications.htm](http://www.businessballs.com/nvqs_national_vocational_qualifications.htm)

What Is The NVQ-J- [http://www.nqrjamaica.org/nationalregister/generalinfo/mynvqi\\_info.aspx](http://www.nqrjamaica.org/nationalregister/generalinfo/mynvqi_info.aspx).

## APPENDICES

A study for searching reasons for lower pass rate of the courses of NVQ level 5 in Colleges of  
Technology

2011 වර්ෂයේ NVQ level 5 පාඨමාලා හැදෑරූ සිසුන් සඳහා ප්‍රශ්නාවලිය

ඔබ සපයන තොරතුරුවල රහස්‍යභාවය සුරකින බව කාරුණිකව සලකන්න.

1. පාඨමාලාව හැදෑරූ කාර්මික විද්‍යාලයේ නම .....

2. ඔබ හැදෑරූ පාඨමාලාව කුමක්ද? .....

3. ඔබ පාඨමාලාව ආරම්භයේදී එහි විෂයමාලාව ගැන ඔබ දැනුවත් වී සිටියේද?

1. ඔව් ☐

2. නැත ☐

4 NVQ සහ NVQ නොවන පාඨමාලා අතර ඇති වෙනස පිළිබඳව ඔබ දැනුවත් වී සිටියේද?

1. ඔව් ☐

2. නැත ☐

5. පිළිතුර ඔව් නම් ඒ කුමන ආකාර වෙනසක්ද?

1. NVQ.....

2. NVQ නොවන .....

6. ඔබ NVQ පාඨමාලාවක් තෝරා ගැනීමේ විශේෂත්වය කුමක්ද?

1. එය නව සංකල්පයක් නිසා ☐

2. ඒ මගින් රුකියාමය නිපුණතාවයක් ලබා දෙන නිසා ☐

3. අන්තර්ජාතිකව පිළි ගැනෙන ක්‍රමවේදයක් නිසා ☐

7. ඔබ හැදෑරූ පාඨමාලාවේ ඒ ඒ විෂයයන් ඉගැන්වීම සඳහා අදාළ ගුරුවරුන් සිටියේද?

විෂයයන්	ගුරුවරුන් ඇත	ගුරුවරුන් නැත
1		
2		
3		
4		
5		
6		
7		

8. ගුරුවරුන් නොසිටියේ නම් අදාළ විෂය නිර්දේශය සම්පූර්ණ කළේ කෙසේද?

1. ....

2. ....

9. ඔබ හඳුරු පාඨමාලාවේ ඒ ඒ විෂයයන්ගේ ඉගැන්වුම් ක්‍රමවේදයන් පිළිබඳව ඔබගේ අදහස කුමක්ද?

විෂයයන්	විෂය සම්පූර්ණයෙන් ග්‍රහණය කර ගත හැකි විය	විෂය සම්පූර්ණයෙන් ග්‍රහණය කර ගත නොහැකි විය	ග්‍රහණය ගැතිමට/ නොගැතිමට බලපෑ හේතු
1			
2			
3			
4			
5			
6			
7			
8			

10. ඔබ හදාරන පාඨමාලාව ඉංග්‍රීසියෙන් ඉගැන්වීම පිළිබඳ ඔබගේ අදහස කුමක්ද?

1. ....

2. ....

11. ඔබ පාඨමාලාවේ ඉගැන්වීම් කටයුතු සඳහා පහත දැක්වෙන ඉගැන්වුම් / ඉගෙනුම් ක්‍රමවේදයන්ගෙන් කුමක් භාවිතා කළේද?

- |  |                          |
|--|--------------------------|
| 1. දේශන  | <input type="checkbox"/> |
| 2. කර්මාන්ත ආයතන වලින් පැමිණෙන බාහිර දේශකවරුන් මාර්ගයෙන් | <input type="checkbox"/> |
| 3. බහුවිධ ප්‍රක්ෂේපණ මාර්ගයෙන්                           | <input type="checkbox"/> |
| 4. නිබන්ධන (තනි / සාමූහික)                               | <input type="checkbox"/> |
| 5. මේ සියලුම ක්‍රම මගින්                                 | <input type="checkbox"/> |

12. ඔබගේ ඉගැන්වුම් කටයුතු සඳහා අවශ්‍ය භෞතික සම්පත් ප්‍රමාණවත් පරිදි ලැබුනේද?

භෞතික සම්පත්	ප්‍රමාණවත්විය	ප්‍රමාණවත් නොවිය

13. ඔබ පාඨමාලාවට අදාළ අඛණ්ඩ ඇගයීම් සියල්ලම ඔබ විසින් සම්පූර්ණ කරනු ලැබුවේද?

1. ඔව් ☐

2. නැත ☐

14. පිළිතුර නැත නම් එයට හේතු මොනවාද?

1. ....

2. ....

15. ඔබගේ නිපුණතාවයන් අඛණ්ඩව සටහන් කරමින් ඔබගේ ගුරුවරයා විසින් වාර්තා පොතක් පවත්වා ගෙන ගියේද?

1. ඔව් ☐

2. නැත ☐

16. පිළිතුර නැත නම් එයට හේතු මොනවාද?

1. ....

2. ....

17. ඔබගේ පළමු සමාසිකයේ ලිඛිත විභාගය එකවර සමත් වූයේද?

1. ඔව් ☐

2. නැත ☐

18. පිළිතුර නැත නම් එම විභාගය සමත් වූයේ කී වෙනි වරටද?

1. දෙවෙනි වරට ☐

2. තුන් වන වරට ☐

3. හතර වන වරට ☐

4. අසමත් විය ☐

19. ඔබ අසමත් වූයේ නම් ඔබ දකින ආකාරයට ඊට හේතුව කුමක්ද?

1. ....

2. ....

20. ඔබගේ දෙවන සමාසිකයේ ලිඛිත විභාගය එක වර සමත් වූයේද?

1. ඔව් ☐

2. නැත ☐

21. පිළිතුර නැත නම් එම විභාගය සමත් වූයේ කිවෙනි වරටද?

1. දෙවන වරට ☐
2. තුන්වන වරට ☐
3. හතරවන වරට ☐
4. අසමත් විය ☐

22. ඔබ අසමත් වූයේ නම් ඔබ දකින ආකාරයට ඊට හේතුව කුමක්ද?

1. ....
2. ....

23. අවසාන ඇගයීම එකවර සමත් වූයේද?

1. ඔව් ☐
2. නැත ☐

24. පිළිතුර නැත නම් එම ඇගයීම සමත් වූයේ කිවෙනි වරටද?

1. දෙවන වරට ☐
2. තුන් වන වරට ☐
3. හතර වන වරට ☐
4. අසමත් විය ☐

25. ඔබ අසමත් වූයේ නම් ඔබ දකින ආකාරයට ඊට හේතුව කුමක්ද?

1. ....
2. ....

26. ඔබ අවසාන ඇගයීමට මුහුණ දුන්නේ ආයතනගත පුහුණුවට පෙරද? පසුද?

1. පෙර ☐
2. පසු ☐

27. ආයතනගත පුහුණුව ලබාගත් කාල සීමාව සඳහන් කරන්න

1. මාස 3 ☐
2. මාස 6 ☐

28. ඔබ නිපුණතාවය සම්පූර්ණ කර NVQ සහතිකය ලබා ගත්තේද?

1. ඔව් ☐

2. නැත ☐

29. ඔබ නිපුණතාවය සම්පූර්ණ නොකර NVQ සහතිකය ලබා නොගත්තේ නම් ඊට හේතුව කුමක්ද?

1. ....

2. ....

30. NVQ 5 පාඨමාලාවන්ගේ සමත් ප්‍රමාණය අඩු මට්ටමක පවතින බව පෙනේ. ඔබ දකින ආකාරයට ඊට හේතු මොනවාද?

1. ....

2. ....

3. ....

4. ....

31. එම හේතු ඉවත් කිරීමට ඔබ කරන යෝජනා මොනවාද?

1. ....

2. ....

3. ....



A study for searching reasons for lower pass rate of the courses of NVQ level 5 in Colleges of  
Technology

ඇගයීම් කරුවන් සඳහා වන ප්‍රශ්නාවලිය

1. ඔබගේ නම .....

2. රාජකාරි ආයතනය .....

3. ඇගයීම් කරනු ලබන පාඨමාලාව .....

4. ඔබ NAITA ආයතනයේ අනුමැතියෙන් පත්වීම් ලත් ඇගයීම්කරුවෙක්ද?

1. ඔව් ☐

2. නැත ☐

5. ඇගයීම්කරු තනතුර සඳහා ඉල්ලුම් කිරීමට ඔබ සපුරා තිබූ සුදුසුකම්

1. ඉල්ලුම් කරන වෘත්තියට / ක්ෂේත්‍රයට අදාළව පිළිගත් විශ්ව විද්‍යාලයකින් ලබා ගත්  
උපාධියක් සමග අදාළ වෘත්තියට සම්බන්ධ අධීක්ෂණ / කළමනාකරණ මට්ටමේ වසර

3 ක පළපුරුද්ද ☐

2. ඉල්ලුම් කරන වෘත්තියට / ක්ෂේත්‍රයට අදාළව පූර්ණකාලීන වර්ෂ 2 කට නො අඩු  
කාලයකින් යුත් පිළිගත් ආයතනයකින් නිකුත් කළ ඩිප්ලෝමාවක් සමග අදාළ වෘත්තියට  
සම්බන්ධව අධීක්ෂණ කළමනාකරණ මට්ටමේ වසර 3 ක පළපුරුද්දක් තිබීම ☐

3. වෘත්තියට අදාළව තාක්ෂණ මට්ටමේ හෝ ඊට ඉහළ සුදුසුකම් සමග වසර 5

ක් එම වෘත්තිය පුහුණු කිරීමේ කටයුතු වල නියැලීම ☐

4. DTET , VTA, NAITA හෝ TVEC හි ලියාපදිංචි ආයතනයක් විසින් පවත්වාගෙන යනු  
ලබන ශිල්පීය මට්ටමේ පාඨමාලාවක් සාර්ථක ලෙස හැදෑරීමෙන් පසු අදාළ වෘත්තියේ වසර  
8 ක පළපුරුද්දක් තිබීම. ☐

6. ප්‍රශ්න අංක 4 ට පිළිතුර නැත නම් ඔබ ඇගයීම් කටයුතුවල යෙදෙන්නේ කුමන පදනමක් මතද?

1. අදාළ පුහුණු ආයතනයේ ඉල්ලීම නිසා ☐

2. ඇගයීම්කරුවකු ලෙස පත්වීම් ලැබීමට NAITA ආයතනයෙන් අනුමත සුදුසුකම් සපුරා තිබීම  
නිසා ☐

3. අදාළ පාඨමාලාව ඇගයීම් කිරීම සඳහා අනුමත පුද්ගලයකු නොමැති නිසා ☐

7. ඔබ තාක්ෂණ විශ්ව විද්‍යාලය මගින් පවත්වනු ලබන ඇගයීම්කරුවන් පුහුණු කිරීමේ වැඩ සටහනට සහභාගි වී තිබේද?

1. ඔව් ☐

2. නැත ☐

8. පිළිතුරු නැත නම් ඒ කුමන හේතුවක් නිසාද?

1. ....

2. ....

9. ඔබේ නම TVEC හි ඇගයීම්කරුවන්ගේ සංවිනයෙහි සටහන් වී තිබේද?

1. ඔව් ☐

2. නැත ☐

10. ඔබ පහත දැක්වෙන කිනම් ඇගයීම්කරුවෙක් ලෙස සංවිනයෙහි සටහන්ව ඇත්ද?

1. පරිවාසකාලයෙහි කටයුතු කරන ඇගයීම්කරුවෙක් ☐

2. ලියාපදිංචි ඇගයීම්කරුවෙක් ☐

3. බල ලත් ඇගයීම්කරුවෙක් ☐

11. ඔබ අදාළ වෘත්තියෙහි පූර්ව ඇගයීම් සහ අවසන් ඇගයීම් කටයුතු දෙකට සහභාගි වී තිබේද?

1. ඔව් ☐

2. නැත ☐

12. ඔබ විසින් සිදු කරන ඇගයීම් TVEC හි නියමය පරිදි අදාළ පාඨමාලාව ප්‍රතිභාසය කොට ඇති මධ්‍යස්ථානයන්හිදී පමණක් පවත්වන්නේද?

1. ඔව් ☐

2. නැත ☐

13. පිළිතුරු නැත නම් එයට හේතු මොනවාද?

1. ....

2. ....

14. පුහුණුවලාභිත් සඳහා වන ඇගයීම් වාර්තා පොත් අදාළ ආයතන විසින් කලට වේලාවට ලබා දීම සිදු කරයිද?

1. ඔව් ☐

2. නැත ☐

15. පූර්ව ඇගයීමේදී සැලසුම් කළ පරිද්දෙන්ම අවසාන ඇගයීමක් සිදුවේද?

1. ඔව් ☐

2. නැත ☐

3. සමහර විට වෙනස්වීම් වලට හාජනය වේ ☐

16. ඔබ විසින් අවසන් ඇගයීම සිදු කර අදාළ ලිපි ලේඛන (ඇගයීම් වාර්තා පොත් AS 01) කලට වේලාවට නියමිත ආයතනයට ලබා දෙන්නේද?

1. ඔව් ☐

2. නැත ☐

17. මෙම ලිපි ලේඛන කලට වේලාවට බාර දීමට අපහසුතා වේ නම් ඒ මොනවාද?

1. ....

2. ....

18. ඔබේ අත්දැකීම් අනුව ඔබ ඇගයීම් කරන වෘත්තියෙහි අවසාන ඇගයීම සමත් වීමේ ප්‍රතිශතය කොපමණද? .....

19. අවසාන ඇගයීම සමත්වීම එවන් ප්‍රතිශතයක් ලබා ගැනීමට හේතු වන කරුණු මොනවාද?

1. ....

2. ....

20. ඔබ දකින ආකාරයට ඔබ ඇගයීම් කරන වෘත්තියෙහි නිපුණතාවය ලැබීමට අසමත්වන ඇගයීම්ලාභින් ඒ තත්වයට පත්වීමට හේතු මොනවාද?

1. ....

2. ....

21. ඔබ දන්නා ආකාරයට අදාළ පාඨමාලාවෙහි නිපුණතාවය ලැබීමට අපොහොසත් වන වැඩි ප්‍රතිශතයක් එසේ වන්නේ කුමන හේතුවක් නිසාද?

1. අදාළ ලිඛිත පරීක්ෂණයෙන් අසමත් වීම ☐

☐

2. අවසන් ඇගයීමෙන් නිපුණතාවයට පත් නොවීම

22. අදාළ වෘත්තියෙහි නිපුණතාවය නොලැබූ අපේක්ෂකයන් අභියාචනා මගින් නිපුණතාවය ලබා ගත් අවස්ථා වේද?

1. ඔව්

☐

2. නැත

☐

23. තිබේ නම් එහි ප්‍රතිශත මට්ටම කුමක් විය හැකිද? .....

24. 2011 වර්ෂයේ අත්දැකීම් අනුව NVQ Level 5 පාඨමාලා හැදෑරූ සිසුන්ගේ නිපුණතාවය ලබා ගත් ප්‍රමාණය අඩු මට්ටමක පවතී. ඊට හේතු වශයෙන් ඔබ දකින්නේ මොනවාද?

1. ....

2. ....

3. ....

25. එම පාඨමාලා අසමත් වන ප්‍රමාණය අඩු කර ගැනීමට ඔබ කරන යෝජනා මොනවාද?

1. ....

2. ....

3. ....

A study for searching reasons for lower the pass rate of the courses of NVQ level 5 in Colleges  
Of Technology

තාක්ෂණ විද්‍යාල අධ්‍යක්ෂවරුන් සඳහා ප්‍රශ්නාවලිය

අදාල කොටුවල ලකුණ යොදන්න

1. තාක්ෂණවිද්‍යාලයේ නම .....

2. ඔබ තාක්ෂණ විද්‍යාලයේ පැවැත්වෙන NVQ 5 පාඨමාලා මොනවාද ?

- |   |                          |
|---|--------------------------|
| 1. National Diploma in Automobile Technology                    | <input type="checkbox"/> |
| 2. National Diploma in Construction Technology                  | <input type="checkbox"/> |
| 3. National Diploma in Farm Machinery Technology                | <input type="checkbox"/> |
| 4. National Diploma in Food Technology                          | <input type="checkbox"/> |
| 5. National Diploma in Information & Communication Technology   | <input type="checkbox"/> |
| 6. National Diploma in refrigeration & Air condition Technology | <input type="checkbox"/> |
| 7. National Diploma in Mechatronic Technology                   | <input type="checkbox"/> |
| 8. National Diploma in Telecommunication Technology             | <input type="checkbox"/> |
| 9. National Diploma Welding Technology                          | <input type="checkbox"/> |
| 10. National Diploma in Production Technology                   | <input type="checkbox"/> |

3. ඔබ දන්නා ආකාරයට එම NVQ 5 පාඨමාලාවන් ඔබ ආයතනයේ පැවැත්වීමට යෝග්‍යයයි තීරණය කළේ ශක්‍යතා අධ්‍යයනයකින් පසුවද?

1. ඔව් ☐

2. නැත ☐

4. පිළිතුර නැත නම් එම පාඨමාලා ඔබ තාක්ෂණ විද්‍යාලයේ පැවැත්විය යුතු යයි තීරණය කළේ කුමන හේතු පාදක කර ගෙනද?

පාඨමාලාව	හේතු

5. ඔබ තාක්ෂණ විද්‍යාලය හා අදාළ NVQ 5 පාඨමාලා TVEC ආයතනය මගින් ප්‍රතිත්‍යය කර තිබේද?

ආයතනය/ පාඨමාලාව	ප්‍රතිත්‍යයකර ඇත	ප්‍රතිත්‍යයකර නැත
ආයතනය		

6. ප්‍රතිත්‍යය කර නොමැති පාඨමාලා තිබේ නම් ඒ සඳහා බලපෑ හේතු මොනවාද ?

පාඨමාලාව	ප්‍රතිත්‍යය නොකිරීමට බලපෑ හේතු

7. සෑම NVQ 5 පාඨමාලාවක් සඳහා අදාළ විෂයමාලා ඔබ විද්‍යාලය වෙත ලැබී තිබේද ?

පාඨමාලාව	විෂයමාලා ඇති නැතිබව

8. ඒ. ඒ පාඨමාලාවන් ඉගැන්වීම සඳහා සිටින ස්ථීර සහ බාහිර ආචාර්ය ඔණ්ඩල ?

පාඨමාලාව	ස්ථීර ආචාර්ය මණ්ඩලය	බාහිර ආචාර්ය මණ්ඩලය

9. මේ පාඨමාලාවල විෂයයක් හෝ විෂයයන් ඉගැන්වීමට අවශ්‍ය ස්ථීර හෝ බාහිර උපදේශකවරුන් නොමැති තත්වයක් පවතින්නේද ?

1.. ඔව් ☐

2. නැත ☐

10. එසේ නම් ඒ කුමන පාඨමාලාවල කුමන විෂයයන් සඳහාද ?

පාඨමාලාව	විෂයය

11. NVQ5 පාඨමාලාවල ඉගැන්වීම් කටයුතු සිදුකිරීම සඳහා අවශ්‍ය භෞතික සම්පත් කලට වෙලාවට ලබා දීමේ හැකියාව තිබේද ?

1. ඔව් ☐

2. නැත ☐

12. පිළිතුර නැත නම් ඊට බලපා ඇති හේතු මොනවාද ?

1. ....

2. ....

13. ඔබගේ අධ්‍යයන කාර්ය මණ්ඩලය NVQ පාඨමාලා සංකල්පය පිළිබඳව හා එහි ක්‍රියාත්මක භාවය පිළිබඳව දැනුවත් කර තිබේද?

1. ඔව් ☐

2. නැත ☐

14. පිළිතුර නැත නම් ඔවුන් දැනුවත් කිරීම පිළිබඳව ගත යුතු ක්‍රියාමාර්ගයන් පිළිබඳව ඔබ කරන යෝජනා මොනවාද ?

1. ....

2. ....

3. ....

15. NVQ 5 පාඨමාලා ආරම්භක කාල සීමාව කුමක්ද ?

.....

16. මෙම ආරම්භක කාල සීමාව පිළිබඳව ලබුන් බඳවා ගැනීම සම්බන්ධයෙන් ඔබගේ අදහස කුමක්ද ?

1. ....

2. ....

17. මෙම පාඨමාලා වලට ලබුන් බඳවා ගැනීමේ සුදුසුකම් එම පාඨමාලාවල ඉගැන්වීම් කටයුතු සාර්ථකව සිදුකිරීමට ප්‍රමාණවත් වන්නේ යයි ඔබ සිතන්නේද ?

1. ඔව් ☐

2. නැත ☐

18. පිළිතුර නැත නම් ඒ කුමන පාඨමාලාවල කුමන සුදුසුකම් සඳහාද ?

පාඨමාලාව	සුදුසුකම්	ප්‍රමාණවත්වේ	ප්‍රමාණවත් නොවේ

19. ප්‍රමාණවත් නොවේ නම් ඔබ යෝජනා කරන සුදුසු කම් මොනවාද ?

පාඨමාලාව	යෝජිත සුදුසුකම්

20. මෙම පාඨමාලාවල අඛණ්ඩ ඇගයීම් ක්‍රමය පිළිබඳව ඔබගේ අදහස කුමක්ද ?

1. ....

2. ....



21. ලිඛිත විභාගයේ ප්‍රථම ලබාදීමෙන් පසු සිදු කරන අවසාන ඇගයීමේදී ඇගයීම්කරුවන්(Assesors) ප්‍රමාදයකින් තොරව ලබා ගැනීමේ හැකියාවක් පවතීද ?

1. ඔව්

2. නැත


22. පිළිතුර නැත නම් ඒ සඳහා බලපා ඇති හේතු මොනවාද ?

1. ....

2. ....

23. ශිෂ්‍යයා ලිඛිත විභාගයෙන් සමත් වූවන් අවසාන ඇගයීමේදී අසමත් වන බව පෙනේ. ඔබ දකින ආකාරයට ඒ සඳහා බලපා ඇති හේතු මොනවාද ?

1. ....

2. ....

24. ලිඛිත විභාගය පිළිබඳ ඔබගේ අදහස කුමක්ද ?

1. ....

2. ....

25. 2010 සහ 2011 වර්ෂයේ NVQ 5 ප්‍රතිඵල විශ්ලේෂණයෙන් පෙනී යන ආකාරයට ප්‍රතිඵල පහත මට්ටමක පවතින බව පෙනී යයි. ඔබ දකින ආකාරයට ඒ සඳහා බලපා ඇති හේතු මොනවාද ?

පාඨමාලාව	ප්‍රතිඵල අඩුමටමක පැවතීමට හේතු

26. ප්‍රතිඵල වැඩිකර ගැනීම සඳහා ඔබ කරන යෝජනා මොනවාද ?

1. ....

2. ....

## A study for searching reasons for lower pass rate of the courses of NVQ level 5 in Colleges of Technology

කාර්මික අධ්‍යාපන හා පුහුණු කිරීමේ දෙපාර්තමේන්තුවේ අධ්‍යක්ෂ (අධ්‍යයන) සඳහා ප්‍රශ්නාවලිය

1. ඔබ මෙම දෙපාර්තමේන්තුවේ සේවය සඳහා පැමිණීමට පෙර සිටි සේවා ස්ථානය හා තනතුර.....

2. මෙම දෙපාර්තමේන්තුවෙහි මේ වන විට ඔබගේ සේවා කාලය .....

3. තාක්ෂණ විද්‍යාලවල NVQ Level 5 පාඨමාලා පැවැත්වීම පිළිබඳව ඔබ අංශයට හිමිවන කාර්යභාරය කුමක්ද?

1. ....

2. ....

4. තාක්ෂණ විද්‍යාල යම් පාඨමාලාවක් පැවැත්වීමට ඔබ අංශයෙන් අවසර ලබා ගැනීමක් කළ යුතු වේද?

1. ඔව් ☐

2. නැත ☐

5. පිළිතුර ඔව් නම් ඔබ ඒ සඳහා අවසර ලබා දීමේදී අනුගමනය කරන ක්‍රියාමාර්ගය කුමක්ද?

.....

6. පිළිතුර නැත නම් තාක්ෂණ විද්‍යාලයක් NVQ Level 5 පාඨමාලාවක් පටන් ගැනීමේදී අනුගමනය කරන ක්‍රියාමාර්ගය කුමක්ද?

.....

.....

7. ඔබ හඳුනාගෙන ඇති ආකාරයට නව සංකල්පයක් වන NVQ Level 5 පාඨමාලා සාර්ථකව තාක්ෂණ විද්‍යාල තුළ පවත්වා ගෙන යාම සඳහා ඔබ අංශයෙන් ඉටු විය යුතු මෙහෙය කුමක්ද?

1. ....

2. ....

8. උක්ත පාඨමාලාවල අධ්‍යයන කටයුතු පවත්වා ගෙන යාම සඳහා අවශ්‍ය අධ්‍යයන කාර්ය මණ්ඩලය ලබා දීම සම්බන්ධයෙන් ඔබ අංශයේ සහභාගිත්වය කෙසේද?

1. එම පාඨමාලා පවත්වා ගෙන යාම සඳහා අවශ්‍ය සියලුම අධ්‍යයන කාර්ය මණ්ඩලය සම්පූර්ණ කර ඇත.

☐

2. සම්පූර්ණ කර නොමැත

☐

3. සම්පූර්ණ කිරීමට අවශ්‍ය පියවර ගනිමින් සිටී

☐

9. මේ වන විටත් අවශ්‍ය අධ්‍යයන කාර්ය මණ්ඩලය සම්පූර්ණ කිරීමට නොහැකි වී ඇත්නම් ඒ සඳහා බලපා ඇති හේතු මොනවාද?

1. ....

2. ....

10. අධ්‍යයන කාර්ය මණ්ඩලය සම්පූර්ණ කිරීමට අවශ්‍ය පියවර ගනිමින් සිටී නම් ඒ කුමන ආකාරයේ උත්සාහයක්ද?

1. ....

2. ....

11. එම පාඨමාලා පවත්වා ගෙන යාම සඳහා අවශ්‍ය භෞතික සම්පත් ලබා දීම සම්බන්ධයෙන් ඔබ අංශයේ දායකත්වය කෙසේ වේද?

1. ....

2. ....

12. තාක්ෂණ විද්‍යාල වලින් මේ වන විට අවශ්‍ය භෞතික සම්පත්වල හිගතාවයක් පිළිබඳව අවධාරණය කරමින් සිටිති. (අවශ්‍ය දේ අවශ්‍ය ප්‍රමාණයට නොලැබීම පිළිබඳව) ඊට හේතු වශයෙන් ඔබ දක්වන්නේ

1. තාක්ෂණ විද්‍යාල ඒවා නිසි වෙලාවට ඉල්ලුම් නොකිරීම

☐

2. එම ඉල්ලුම් කිරීම පිළිබඳව ඔබ අංශය දැනුවත් නොවීම

☐

3. ඉල්ලුම් කලත් ඒවා ලබා දීම සඳහා නිසි ප්‍රතිපාදන නොවීම

☐

13. තාක්ෂණ විද්‍යාල TVEC ආයතනයේ නිත්‍ය ලියාපදිංචිය සහ නිත්‍ය ප්‍රතිභාවය පිළිබඳව අවශ්‍යතාවයන් සහ නිර්ණායක සපුරාලන බව තහවුරු කිරීම උදෙසා තත්ව කළමනාකරණ පද්ධතියක් ස්ථාපනය කිරීම අවශ්‍ය වේ.

ඔබ දන්නා ආකාරයට සෑම තාක්ෂණ විද්‍යාලයක්ම මෙම තත්ව කළමනාකරණ පද්ධතියක් ස්ථාපනය කර ඇත්ද?

1. ඔව්

☐

2. නැත

☐

3. සමහර තාක්ෂණ විද්‍යාල ක්‍රමානුකූලව පවත්වාගෙන යන අතර සමහර තාක්ෂණ විද්‍යාල

එසේ නොකරයි. ☐

14. තාක්ෂණ විද්‍යාල තත්ව කළමනාකරණ පද්ධතියක් ස්ථාපනය කර ක්‍රමානුකූලව පවත්වා ගෙන යාම සඳහා ඔබ අංශයේ මැදිහත් වීම කෙරෙහිද?

1. සෑම තාක්ෂණ විද්‍යාලයකම තත්ව කළමනාකරණ පද්ධතියක් ස්ථාපනය කිරීමට මග පෙන්වයි. ☐

2. එසේම එය ක්‍රමානුකූලව පවත්වා ගෙන යන්නේද යන්න සොයා බලයි ☐

3. ඒ සඳහා අවශ්‍ය සියලුම විධි විධාන සලසයි ☐

15. තාක්ෂණ විද්‍යාල ප්‍රතිත්‍යය කිරීම සිදු කරනුයේ ඔබ අංශය හරහාද?

1. ඔව් ☐

2. නැත ☐

16. පිළිතුර ඔව් නම් ඒ සඳහා ඔබ කුමන ක්‍රියාමාර්ගයක් අනුගමනය කරයිද?

1. ....

2. ....

17. NVQ Level 5 පාඨමාලා සඳහා ඉගෙනුම් ඉගැන්වුම් ක්‍රියාවලිය යථා පරිදි සිදු වන බවට ඔබ සැහිමකට පත්වන්නේද?

1. ඔව් ☐

2. නැත ☐

18. පිළිතුර නැත නම් එම ක්‍රියාවලිය යථාතත්ව කිරීමට ඔබ මේ වන විටගෙන ඇති පියවරයන් මොනවාද?

1. ....

2. ....

3. ....

19. TVEC ආයතනයේ මෙහෙයුම් අත්පොතට අනුව විපයමාලාව වසර දෙකකින් පසුව වෙනස් විය යුතු වුවත් පසු ගිය කාල වකවානුව තුළ ඉතා ක්ෂණිකව සමහර විපයමාලා වෙනස් වූ බවක් කියවේ. ඔබ දන්නා පරිදි ඊට හේතු වූ කරුණු මොනවාද?

1. ....

2. ....

20. NVQ Level 5 පාඨමාලාවල විපයමාලා සැකසීමේදී ඔබ අංශයේ කාර්යභාරය කුමක්ද?

1. ....

2. ....

21. 2010, 2011 වර්ෂවල උක්ත පාඨමාලාවල ප්‍රතිඵල පහත මට්ටමක පවතින බව පෙනේ.

ඔබ දකින ආකාරයට මේ සඳහා බලපාන කරුණු මොනවාද?

1. ....

2. ....

22. එම හේතු ඉවත් කිරීම සඳහා ඔබ කරන යෝජනා මොනවාද?

1. ....

2. ....

23. උක්ත පාඨමාලාවල ප්‍රගතිය උදෙසා ඔබ කරන වෙනත් යෝජනා ඇත්නම් ඒ මොනවාද?

1. ....

2. ....

A study for searching reasons for lower pass rate of the courses of NVQ level 5 in Colleges of  
Technology

කාර්මික අධ්‍යාපන හා පුහුණු කිරීමේ දෙපාර්තමේන්තුවේ අධ්‍යක්ෂ (පරීක්ෂණ හා ඇගයීම්) සඳහා  
ප්‍රශ්නාවලිය

1. ඔබ මෙම දෙපාර්තමේන්තුවේ සේවය සඳහා පැමිණීමට පෙර සිටි සේවා ස්ථානය හා තනතුර.....

2. මෙම දෙපාර්තමේන්තුවෙහි මේ වන විට ඔබගේ සේවා කාලය .....

3. NVQ Level 5 පාඨමාලාවල අඛණ්ඩ ඇගයීම් රටාව පිළිබඳ ඔබ අංශයට හිමි වන කාර්යභාරය කුමක්ද?.....

4. එම පාඨමාලාවල සිසුවාගේ අඛණ්ඩ ඇගයීම් ලකුණු ඔබ අංශය වෙත ලබා ගන්නේද?

1. ඔව් ☐

2. නැත ☐

5. පිළිතුර ඔව් නම් එම ලකුණු සිසුවාගේ අවසාන නිපුණතාවය සොයා බැලීමේදී දායක කර ගන්නේද?

1. ඔව් ☐

2. නැත ☐

6. පිළිතුර ඔව් නම් ඒ කුමන ආකාරයකද? .....

.....

7. 4 හි පිළිතුර නැත නම් එම ලකුණු කුමන ආකාරයකට සිසු නිපුණතාවය සඳහා දායක කර ගන්නේද? .....

8. පළමු සමාසිකයෙහි ලිඛිත විභාගය එම සමාසිකය අවසන් වූ වහාම පැවැත්වීමට කටයුතු යොදා තිබේද?

1. ඔව් ☐

2. නැත ☐

9. පිළිතුර නැත නම් ඊට හේතු මොනවාද?

1. ....

2. ....

10. දෙවන සමාසිකයෙහි ලිඛිත විභාගය එම විභාගය අවසන් වූ වහාම පැවැත්වීමට කටයුතු යොදා තිබේද?

1. ඔව් ☐

2. නැත ☐

11. පිළිතුර නැත නම් ඊට හේතු මොනවාද?

1. ....

2. ....

12. ලිඛිත විභාගයේ ප්‍රශ්න පත්‍ර සැකසීම සඳහා අදාළ සම්පත්දායකයින් තෝරා ගනු ලබන්නේ අයදුම්පත්‍ර කැඳවීමකින් පසුවද?

1. ඔව් ☐

2. නැත ☐

13. පිළිතුර නැත නම් ඊට හේතු කුමක්ද?

1. ....

2. ....

14. පිළිතුර නැත නම් ඒ සඳහා අනුගමනය කරන ක්‍රියාමාර්ගය කුමක්ද?

1. ....

2. ....

15. ඒ අනුව සුදුසුම පුද්ගලයා ඒ අදාළ කාර්යයෙහි නිරත වන්නේ යයි ඔබ සිතන්නේද?

1. ඔව් ☐

2. නැත ☐

16. ප්‍රශ්නපත්‍ර ප්‍රමිත කිරීම සඳහා අදාළ සම්පත්දායකයින් තෝරා ගනු ලබන්නේ අයදුම්පත්‍ර කැඳවීමකින් පසුවද?

1. ඔව් ☐

2. නැත ☐

17. පිළිතුර නැත නම් ඒ සඳහා අනුගමනය කරන ක්‍රියාමාර්ගය කුමක්ද?

1. ....

2. ....

18. එම ක්‍රියාමාර්ගයෙහි සාර්ථක අසාර්ථකභාවය පිළිබඳ ඔබගේ අදහස කුමක්ද?

1. ....

2. ....

19. ප්‍රශ්නපත්‍ර සකස් කිරීම හා ප්‍රමිත කිරීමේදී යොදා ගනු ලබන්නේ කාර්මික විද්‍යාල ආචාර්ය මණ්ඩලයද?

1. ඔව් ☐

2. නැත ☐

20. පිළිතුර නැත නම් විෂයමාලාව පිළිබඳ ඔවුන් සතුව දැනුමක් ඇතුළු සිතන්නේද?

1. ඔව් ☐

2. නැත ☐

21. NVQ Level 5 පාඨමාලාවල සමහර ප්‍රශ්න පත්‍ර විෂයමාලාව ආවරණය නොකිරීමක් පිළිබඳව කියවෙන අදහස පිළිබඳව ඔබගේ අදහස කුමක්ද?

1. ....

2. ....

22. ඔම පාඨමාලාවල අවසාන ඇගයීම සඳහා ඇගයීම්කරුවන් (Assesors) ලබා ගැනීමේදී TVEC ආයතනයේ ලියාපදිංචි අයදුම්කරුවන් ඒ කාර්ය සඳහා ප්‍රමාණවත් වේද

1. ඔව් ☐

2. නැත ☐

23. පිළිතුර නැත නම් එම කර්මය ඉටු කර ගැනීමේදී අනුගමනය කරන ක්‍රියාමාර්ගය කුමක්ද?

1. ....

2. ....

24. මෙම අවසාන ඇගයීම කරනුයේ කිනම් අවස්ථාවකදීද?

1. සිසුවා ලිඛිත විභාගයට පෙනී සිටීමෙන් පසුව ☐

2. ලිඛිත විභාගයේ ප්‍රතිඵල ලැබීමෙන් පසුව ☐

3. ආයතන පුහුණුව ලැබීමෙන් පසුව ☐

25. අවසාන ඇගයීම කළ යුතු වන්නේ ආයතනගත පුහුණුවෙන් පසුව චූන් සමහර අවස්ථාවලදී ලිඛිත විභාගයේ ප්‍රතිඵල ලැබීමෙන් පසුව සිදු කරන බවක් දක්නට ලැබේ. එයට හේතුව කුමක්ද



1. ....

2. ....

26. 2010. 2011 වර්ෂවල NVQ Level 5 පාඨමාලාවල ප්‍රතිඵල පහත මට්ටමක පවතින බව පැහැදිලි වේ. ඔබ දකින ආකාරයට එයට හේතු මොනවාද?

1. ....

2. ....

27. එම හේතු ඉවත් කිරීමට ඔබ කරන යෝජනා මොනවාද?

1. ....

2. ....

3. ....

A study for searching reasons for lower pass rate of the courses of NVQ level 5 in Colleges  
Of Technology

තාක්ෂණ විද්‍යාල කටීකාර්‍යාවරුන් / උපදේශකවරුන් සඳහා ප්‍රශ්නාවලිය

අදාළ කොටුවල ලකුණ යොදන්න

1. කාර්මික විද්‍යාලයේ නම කුමක්ද ? .....

2. ඔබ කුමන NVQ 5 පාඨමාලාවක / පාඨමාලාවන්ගේ ඉගැන්වීම් කටයුතු සිදු කරන්නේද ?

1.....

2. ....

3. ඔබ ඒ ඒ පාඨමාලාවන්ගේ ඉගැන්වීම් කරන විෂයයන් මොනවාද ?

පාඨමාලාව	විෂයයන්

4. ඔබගේ ඉහළම අධ්‍යයන සුදුසුකම් මොනවාද ?

1. අ. පො. ස. සා. පෙ ☐

2. අ. පො. ස. උ. පෙ ☐

3. උපාධිය ☐

4. පශ්චාත් උපාධි ☐

5. ආචාර්ය උපාධි ☐

5. ඔබගේ වෘත්තීය අධ්‍යාපන සුදුසුකම් මොනවාද?

1. ....

2. ....

3. ....

6. ඔබ ස්ථීර ආචාර්ය මණ්ඩලයේ කෙනෙක්ද ? බාහිර ආචාර්ය මණ්ඩලයේ කෙනෙක්ද ?

1. ස්ථීර ආචාර්ය මණ්ඩලයේ ☐

2. බාහිර ආචාර්ය මණ්ඩලයේ ☐

7. ඔබ උගන්වන පාඨමාලාවට / පාඨමාලාවන්ට අදාළ විෂයමාලා ඔබ සතුව තිබේද ?

1. ඔව් ☐

2. නැත ☐

8. පිළිතුර නැත නම් ඊට හේතු මොනවාද ?

1. ....

2. ....

9. පිළිතුර ඔව් නම් ඔබ උගන්වන විෂයයන්ට අදාළ විෂයමාලා පිළිබඳව ඔබ විසින් සිසුන් දැනුවත් කර තිබේද ?

1. ....

2. ....

10. ඔබ දකින ආකාරයට NVQ පාඨමාලාවක් සහ NVQ නොවන පාඨමාලාවක් අතර ඇති වෙනස කුමක්ද ?

1. ....

2. ....

11. ඔබගේ විෂය / විෂයයන් සම්බන්ධයෙන් සිසුවාගේ ස්වයං අධ්‍යයනයට මග පෙන්වීම සඳහා පුහුණුවන්නාගේ මාර්ගෝපදේශය ( නිපුණතා පාදක පුහුණු (CBT) විෂයමාලාවෙහි අඩංගු) භාවිතා කරන්නේද ?

1. ඔව් ☐

2. නැත ☐

12. පිළිතුර නැත නම් ඊට හේතු මොනවාද ?

1. ....

2. ....

13. පිළිතුර ඔව් නම් එහි දැක්වෙන ක්‍රමෝපායයන් ඔහුගේ නිපුණතාවය තහවුරු කිරීමට සමත් වේද ?

1. ඔව් ☐

2. නැත ☐

14. පිළිතුර නැත නම් ඒ සඳහා ඔබ යෝජනා කරන ක්‍රමෝපායයන් මොනවාද ?

1. ....

2. ....

15. ඔබගේ විෂයමාලාවෙහි සඵල පුහුණුවක් සඳහා මග පෙන්වන පුහුණුකරුගේ මාර්ගෝපදේශය ඇතුළත් වේද ?

1. ඔව් ☐

2. නැත ☐

16. පිළිතුර ඔව් නම් එහි අන්තර්ගතය ඔබට මග පෙන්වීමට සෑහේද ?

1. ඔව් ☐

2. නැත ☐

17. ඔබ ඉගැන්වීම සඳහා පහත දැක්වෙන කුමන ක්‍රමෝපායයන් භාවිතා කරන්නේද ?

ක්‍රමෝපායයන්	භාවිතාකරයි	භාවිතා නොකරයි
1. ගුරු කේන්ද්‍රීය ක්‍රමය		
2. සිසු කේන්ද්‍රීය ක්‍රමය		

18. ඔබ ඉගැන්වීම සඳහා පහත දැක්වෙන කුමන ඉගැන්වුම් උපකරණ භාවිතා කරන්නේද ?

ඉගැන්වුම් උපකරණ	භාවිතාකරයි	භාවිතා නොකරයි
1. කළු ලෑල්ල		
2. ඉහති ප්‍රක්ෂේපණය (overhead projector)		
3. අන්තර්ජාලය		

19. ඔබට ඉගැන්වීම සඳහා ඇති වැඩහල (workshop) සහ එහි ඇති උපකරණයන්ගේ තත්වය කෙබඳුවේද ?

	ප්‍රමාණවත්වේ	ප්‍රමාණවත් නැත
1. වැඩහලෙහි ඉඩකඩ		
2. යන්ත්‍ර සූත්‍ර		
3. අමුද්‍රව්‍ය		

20. ඔබට ඉගැන්වීම සඳහා අවශ්‍ය විද්‍යුත් උපකරණ තාක්ෂණ විද්‍යාලය තුළින් සපයා ගැනීමේ හැකියාව තිබේද ?

1. ඔව් ☐

2. නැත ☐

21. පිළිතුර නැත නම් ඊට බලපෑ හේතු මොනවාද ?

1. ....

2. ....

22. ඔබගේ විෂය / විෂයයන් සම්බන්ධයෙන් නිශ්චිත අඛණ්ඩ ඇගයීම් ක්‍රමයක් විෂයමාලාවෙහි අඩංගු වන්නේද ?

1.ඔව් ☐

2.නැත ☐

21. පිළිතුර නැත නම් ඔබ ඒ සඳහා අනුගමනය කරන ක්‍රියාමාර්ගය කුමක්ද ?

1. ....

2. ....

23.පුහුණුවන්නාගේ අඛණ්ඩ ඇගයීම් තොරතුරු සටහන් කරන වාර්තා ගොනුව අඛණ්ඩව පවත්වාගෙන යන්නේද ?

1.ඔව් ☐

2. නැත ☐

24. ඔබ දකින ආකාරයට මෙම අඛණ්ඩ ඇගයීම් මගින් සිසුවා අදාළ රැකියාවට අවශ්‍ය නිපුණතාවය ලබා ගන්නේද ?

1.ඔව් ☐

2. නැත ☐

25. පිළිතුර නැත නම්ඔබ ඒ සඳහායෝජනාකරනක්‍රියාමාර්ගය කුමක්ද ?

1. ....

2. ....

26. මෙම අඛණ්ඩ ඇගයීම් ලකුණු අවසාන ප්‍රතිඵලය නිශ්චය කිරීම සඳහා බලපාන්නේද ?

1. ඔව් ☐

2. නැත ☐

27. පිළිතුර ඔව් නම් අවසාන ප්‍රතිඵලය සඳහා එම ලකුණු යොදා ගන්නේ කෙසේද ?

1. ....

2. ....

28. පිළිතුර නැත නම් එම ලකුණු කුමක් උදෙසා භාවිතා කරයිද ?

1. ....

2. ....

29. ඔබ උගන්වන විෂය / විෂයයන්ගේ 2010 සහ 2011 වර්ෂයන්ගේ ප්‍රතිඵලවල ප්‍රතිශතයන් කොපමණද ?

විෂයයන්	2010 ප්‍රතිඵල %	2011 ප්‍රතිඵල %
1.		
2.		
3.		
4.		
5.		

30. ඔබ උගන්වන විෂයයන්ගේ ප්‍රතිඵල පිළිබඳ ඔබ සැහිමකට පත්වන්නේද ?

1. ඔව් ☐

2. නැත ☐

31. පිළිතුර නැත නම් ඊට හේතු මොනවාද ?

1. ....

2. ....

3. ....

32. ප්‍රතිඵල සාර්ථක / අසාර්ථක මට්ටමක පවතින්නේ නම් ඊට බල පෑ හේතු මොනවාද ?

1. ....

2. ....

33. මෙම පාඨමාලාවල ප්‍රතිඵල ඉහල මට්ටමකට ගෙන ඒම සඳහා ඔබ කරන යෝජනා මොනවාද?

1. ....

2. ....

A study for searching reasons for lower pass rate of the courses of NVQ level 5 in Colleges  
Of Technology

තාක්ෂණ විද්‍යාල කටීකාර්‍යාර්ථයවරුන් / උපදේශකවරුන් සඳහා ප්‍රශ්නාවලිය

අදාළ කොටුවල ලකුණ යොදන්න

1. කාර්මික විද්‍යාලයේ නම කුමක්ද ? .....

2. ඔබ කුමන NVQ 5 පාඨමාලාවක / පාඨමාලාවන්ගේ ඉගැන්වීම් කටයුතු සිදු කරන්නේද ?

1.....

2. ....

3. ඔබ ඒ ඒ පාඨමාලාවන්ගේ ඉගැන්වීම් කරන විෂයයන් මොනවාද ?

පාඨමාලාව	විෂයයන්

4. ඔබගේ ඉහළම අධ්‍යයන සුදුසුකම් මොනවාද ?

1. අ. පො. ස. සා. පෙ ☐

2. අ. පො. ස. උ. පෙ ☐

3. උපාධිය ☐

4. පශ්චාත් උපාධි ☐

5. ආචාර්ය උපාධි ☐

5. ඔබගේ වෘත්තීය අධ්‍යාපන සුදුසුකම් මොනවාද?

1. ....

2. ....

3. ....

6. ඔබ ස්ථීර ආචාර්ය මණ්ඩලයේ කෙනෙක්ද ? බාහිර ආචාර්ය මණ්ඩලයේ කෙනෙක්ද ?

1. ස්ථීර ආචාර්ය මණ්ඩලයේ ☐

2. බාහිර ආචාර්ය මණ්ඩලයේ ☐

7. ඔබ උගන්වන පාඨමාලාවට / පාඨමාලාවන්ට අදාළ විෂයමාලා ඔබ සතුව තිබේද ?

1. ඔව් ☐

2. නැත ☐

8. පිළිතුර නැත නම් ඊට හේතු මොනවාද ?

1. ....

2. ....

9. පිළිතුර ඔව් නම් ඔබ උගන්වන විෂයයන්ට අදාළ විෂයමාලා පිළිබඳව ඔබ විසින් සිසුන් දැනුවත් කර තිබේද ?

1. ....

2. ....

10. ඔබ දකින ආකාරයට NVQ පාඨමාලාවක් සහ NVQ නොවන පාඨමාලාවක් අතර ඇති වෙනස කුමක්ද ?

1. ....

2. ....

11. ඔබගේ විෂය / විෂයයන් සම්බන්ධයෙන් සිසුවාගේ ස්වයං අධ්‍යයනයට මග පෙන්වීම සඳහා පුහුණුවන්නාගේ මාර්ගෝපදේශය ( නිපුණතා පාදක පුහුණු (CBT) විෂයමාලාවෙහි අඩංගු) භාවිතා කරන්නේද ?

1. ඔව් ☐

2. නැත ☐

12. පිළිතුර නැත නම් ඊට හේතු මොනවාද ?

1. ....

2. ....



13. පිළිතුර ඔව් නම් එහි දැක්වෙන ක්‍රමෝපායයන් ඔහුගේ නිපුණතාවය තහවුරු කිරීමට සමත් වේද ?

1. ඔව් ☐

2. නැත ☐

14. පිළිතුර නැත නම් ඒ සඳහා ඔබ යෝජනා කරන ක්‍රමෝපායයන් මොනවාද ?

1. ....

2. ....

15. ඔබගේ විෂයමාලාවෙහි සඵල පුහුණුවක් සඳහා මග පෙන්වන පුහුණුකරුගේ මාර්ගෝපදේශය ඇතුළත් වේද ?

1. ඔව් ☐

2. නැත ☐

16. පිළිතුර ඔව් නම් එහි අන්තර්ගතය ඔබට මග පෙන්වීමට සෑහේද ?

1. ඔව් ☐

2. නැත ☐

17. ඔබ ඉගැන්වීම සඳහා පහත දැක්වෙන කුමන ක්‍රමෝපායයන් භාවිතා කරන්නේද ?

ක්‍රමෝපායයන්	භාවිතාකරයි	භාවිතා නොකරයි
1. ගුරු කේන්ද්‍රීය ක්‍රමය		
2. සිසු කේන්ද්‍රීය ක්‍රමය		

18. ඔබ ඉගැන්වීම සඳහා පහත දැක්වෙන කුමන ඉගැන්වුම් උපකරණ භාවිතා කරන්නේද ?

ඉගැන්වුම් උපකරණ	භාවිතාකරයි	භාවිතා නොකරයි
1. කළු ලෑල්ල		
2. ඉහති ප්‍රක්ෂේපණය (overhead projector)		
3. අන්තර්ජාලය		

19. ඔබට ඉගැන්වීම සඳහා ඇති වැඩහල (workshop) සහ එහි ඇති උපකරණයන්ගේ තත්වය කෙබඳුවේද ?

	ප්‍රමාණවත්වේ	ප්‍රමාණවත් නැත
1. වැඩහලෙහි ඉඩකඩ		
2. යන්ත්‍ර සූත්‍ර		
3. අමුද්‍රව්‍ය		

20. ඔබට ඉගැන්වීම සඳහා අවශ්‍ය විද්‍යුත් උපකරණ තාක්ෂණ විද්‍යාලය තුළින් සපයා ගැනීමේ හැකියාව තිබේද ?

1. ඔව් ☐

2. නැත ☐

21. පිළිතුර නැත නම් ඊට බලපෑ හේතු මොනවාද ?

1. ....

2. ....

22. ඔබගේ විෂය / විෂයයන් සම්බන්ධයෙන් නිශ්චිත අඛණ්ඩ ඇගයීම් ක්‍රමයක් විෂයමාලාවෙහි අඩංගු වන්නේද ?

1.ඔව් ☐

2.නැත ☐

21. පිළිතුර නැත නම් ඔබ ඒ සඳහා අනුගමනය කරන ක්‍රියාමාර්ගය කුමක්ද ?

1. ....

2. ....

23.පුහුණුවන්නාගේ අඛණ්ඩ ඇගයීම් තොරතුරු සටහන් කරන වාර්තා ගොනුව අඛණ්ඩව පවත්වාගෙන යන්නේද ?

1.ඔව් ☐

2. නැත ☐

24. ඔබ දකින ආකාරයට මෙම අඛණ්ඩ ඇගයීම් මගින් සිසුවා අදාළ රැකියාවට අවශ්‍ය නිපුණතාවය ලබා ගන්නේද ?

1.ඔව් ☐

2. නැත ☐

25. පිළිතුර නැත නම්ඔබ ඒ සඳහායෝජනාකරනක්‍රියාමාර්ගය කුමක්ද ?

1. ....

2. ....

26. මෙම අඛණ්ඩ ඇගයීම් ලකුණු අවසාන ප්‍රතිඵලය නිශ්චය කිරීම සඳහා බලපාන්නේද ?

1. ඔව් ☐

2. නැත ☐

27. පිළිතුර ඔව් නම් අවසාන ප්‍රතිඵලය සඳහා එම ලකුණු යොදා ගන්නේ කෙසේද ?

1. ....

2. ....

28. පිළිතුර නැත නම් එම ලකුණු කුමක් උදෙසා භාවිතා කරයිද ?

1. ....

2. ....

29. ඔබ උගන්වන විෂය / විෂයයන්ගේ 2010 සහ 2011 වර්ෂයන්ගේ ප්‍රතිඵලවල ප්‍රතිශතයන් කොපමණද ?

විෂයයන්	2010 ප්‍රතිඵල %	2011 ප්‍රතිඵල %
1.		
2.		
3.		
4.		
5.		

30. ඔබ උගන්වන විෂයයන්ගේ ප්‍රතිඵල පිළිබඳ ඔබ සැහිමකට පත්වන්නේද ?

1. ඔව් ☐

2. නැත ☐

31. පිළිතුර නැත නම් ඊට හේතු මොනවාද ?

1. ....

2. ....

3. ....

32. ප්‍රතිඵල සාර්ථක / අසාර්ථක මට්ටමක පවතින්නේ නම් ඊට බල පෑ හේතු මොනවාද ?

1. ....

2. ....

33. මෙම පාඨමාලාවල ප්‍රතිඵල ඉහළ මට්ටමකට ගෙන ඒම සඳහා ඔබ කරන යෝජනා මොනවාද?

1. ....

2. ....

A study for searching reasons for lower pass rate of the courses of NVQ level 5 in Colleges  
Of Technology

තාක්ෂණ විද්‍යාල කටීකාර්‍යාවරුන් / උපදේශකවරුන් සඳහා ප්‍රශ්නාවලිය

අදාළ කොටුවල ලකුණ යොදන්න

1. කාර්මික විද්‍යාලයේ නම කුමක්ද ? .....

2. ඔබ කුමන NVQ 5 පාඨමාලාවක / පාඨමාලාවන්ගේ ඉගැන්වීම් කටයුතු සිදු කරන්නේද ?

1.....

2. ....

3. ඔබ ඒ ඒ පාඨමාලාවන්ගේ ඉගැන්වීම් කරන විෂයයන් මොනවාද ?

පාඨමාලාව	විෂයයන්

4. ඔබගේ ඉහළම අධ්‍යයන සුදුසුකම් මොනවාද ?

1. අ. පො. ස. සා. පෙ ☐

2. අ. පො. ස. උ. පෙ ☐

3. උපාධිය ☐

4. පශ්චාත් උපාධි ☐

5. ආචාර්ය උපාධි ☐

5. ඔබගේ වෘත්තීය අධ්‍යාපන සුදුසුකම් මොනවාද?

1. ....

2. ....

3. ....

6. ඔබ ස්ථීර ආචාර්ය මණ්ඩලයේ කෙනෙක්ද ? බාහිර ආචාර්ය මණ්ඩලයේ කෙනෙක්ද ?

1. ස්ථීර ආචාර්ය මණ්ඩලයේ ☐

2. බාහිර ආචාර්ය මණ්ඩලයේ ☐

7. ඔබ උගන්වන පාඨමාලාවට / පාඨමාලාවන්ට අදාළ විෂයමාලා ඔබ සතුව තිබේද ?

1. ඔව් ☐

2. නැත ☐

8. පිළිතුර නැත නම් ඊට හේතු මොනවාද ?

1. ....

2. ....

9. පිළිතුර ඔව් නම් ඔබ උගන්වන විෂයයන්ට අදාළ විෂයමාලා පිළිබඳව ඔබ විසින් සිසුන් දැනුවත් කර තිබේද ?

1. ....

2. ....

10. ඔබ දකින ආකාරයට NVQ පාඨමාලාවක් සහ NVQ නොවන පාඨමාලාවක් අතර ඇති වෙනස කුමක්ද ?

1. ....

2. ....

11. ඔබගේ විෂය / විෂයයන් සම්බන්ධයෙන් සිසුවාගේ ස්වයං අධ්‍යයනයට මග පෙන්වීම සඳහා පුහුණුවන්නාගේ මාර්ගෝපදේශය ( නිපුණතා පාදක පුහුණු (CBT) විෂයමාලාවෙහි අඩංගු) භාවිතා කරන්නේද ?

1. ඔව් ☐

2. නැත ☐

12. පිළිතුර නැත නම් ඊට හේතු මොනවාද ?

1. ....

2. ....

13. පිළිතුර ඔව් නම් එහි දැක්වෙන ක්‍රමෝපායයන් ඔහුගේ නිපුණතාවය තහවුරු කිරීමට සමත් වේද ?

1. ඔව් ☐

2. නැත ☐

14. පිළිතුර නැත නම් ඒ සඳහා ඔබ යෝජනා කරන ක්‍රමෝපායයන් මොනවාද ?

1. ....

2. ....

15. ඔබගේ විෂයමාලාවෙහි සඵල පුහුණුවක් සඳහා මග පෙන්වන පුහුණුකරුගේ මාර්ගෝපදේශය ඇතුළත් වේද ?

1. ඔව් ☐

2. නැත ☐

16. පිළිතුර ඔව් නම් එහි අන්තර්ගතය ඔබට මග පෙන්වීමට සෑහේද ?

1. ඔව් ☐

2. නැත ☐

17. ඔබ ඉගැන්වීම සඳහා පහත දැක්වෙන කුමන ක්‍රමෝපායයන් භාවිතා කරන්නේද ?

ක්‍රමෝපායයන්	භාවිතාකරයි	භාවිතා නොකරයි
1. ගුරු කේන්ද්‍රීය ක්‍රමය		
2. සිසු කේන්ද්‍රීය ක්‍රමය		

18. ඔබ ඉගැන්වීම සඳහා පහත දැක්වෙන කුමන ඉගැන්වුම් උපකරණ භාවිතා කරන්නේද ?

ඉගැන්වුම් උපකරණ	භාවිතාකරයි	භාවිතා නොකරයි
1. කළු ලෑලි		
2. ඉහති ප්‍රක්ෂේපණය (overhead projector)		
3. අන්තර්ජාලය		

19. ඔබට ඉගැන්වීම සඳහා ඇති වැඩහල (workshop) සහ එහි ඇති උපකරණයන්ගේ තත්වය කෙබඳුවේද ?

	ප්‍රමාණවත්වේ	ප්‍රමාණවත් නැත
1. වැඩහලෙහි ඉඩකඩ		
2. යන්ත්‍ර සූත්‍ර		
3. අමුද්‍රව්‍ය		

20. ඔබට ඉගැන්වීම සඳහා අවශ්‍ය විද්‍යුත් උපකරණ තාක්ෂණ විද්‍යාලය තුළින් සපයා ගැනීමේ හැකියාව තිබේද ?

1. ඔව් ☐

2. නැත ☐

21. පිළිතුර නැත නම් ඊට බලපෑ හේතු මොනවාද ?

1. ....

2. ....

22. ඔබගේ විෂය / විෂයයන් සම්බන්ධයෙන් නිශ්චිත අඛණ්ඩ ඇගයීම් ක්‍රමයක් විෂයමාලාවෙහි අඩංගු වන්නේද ?

1.ඔව් ☐

2.නැත ☐

21. පිළිතුර නැත නම් ඔබ ඒ සඳහා අනුගමනය කරන ක්‍රියාමාර්ගය කුමක්ද ?

1. ....

2. ....

23.පුහුණුවන්නාගේ අඛණ්ඩ ඇගයීම් තොරතුරු සටහන් කරන වාර්තා ගොනුව අඛණ්ඩව පවත්වාගෙන යන්නේද ?

1.ඔව් ☐

2. නැත ☐

24. ඔබ දකින ආකාරයට මෙම අඛණ්ඩ ඇගයීම් මගින් සිසුවා අදාළ රැකියාවට අවශ්‍ය නිපුණතාවය ලබා ගන්නේද ?

1.ඔව් ☐

2. නැත ☐

25. පිළිතුර නැත නම්ඔබ ඒ සඳහායෝජනාකරනක්‍රියාමාර්ගය කුමක්ද ?

1. ....

2. ....

26. මෙම අඛණ්ඩ ඇගයීම් ලකුණු අවසාන ප්‍රතිඵලය නිශ්චය කිරීම සඳහා බලපාන්නේද ?

1. ඔව් ☐

2. නැත ☐

27. පිළිතුර ඔව් නම් අවසාන ප්‍රතිඵලය සඳහා එම ලකුණු යොදා ගන්නේ කෙසේද ?

1. ....

2. ....

28. පිළිතුර නැත නම් එම ලකුණු කුමක් උදෙසා භාවිතා කරයිද ?

1. ....

2. ....

29. ඔබ උගන්වන විෂය / විෂයයන්ගේ 2010 සහ 2011 වර්ෂයන්ගේ ප්‍රතිඵලවල ප්‍රතිශතයන් කොපමණද ?

විෂයයන්	2010 ප්‍රතිඵල %	2011 ප්‍රතිඵල %
1.		
2.		
3.		
4.		
5.		

30. ඔබ උගන්වන විෂයයන්ගේ ප්‍රතිඵල පිළිබඳ ඔබ සැකීමකට පත්වන්නේද ?

1. ඔව් ☐

2. නැත ☐

31. පිළිතුර නැත නම් ඊට හේතු මොනවාද ?

1. ....

2. ....

3. ....

32. ප්‍රතිඵල සාර්ථක / අසාර්ථක මට්ටමක පවතින්නේ නම් ඊට බල පෑ හේතු මොනවාද ?

1. ....

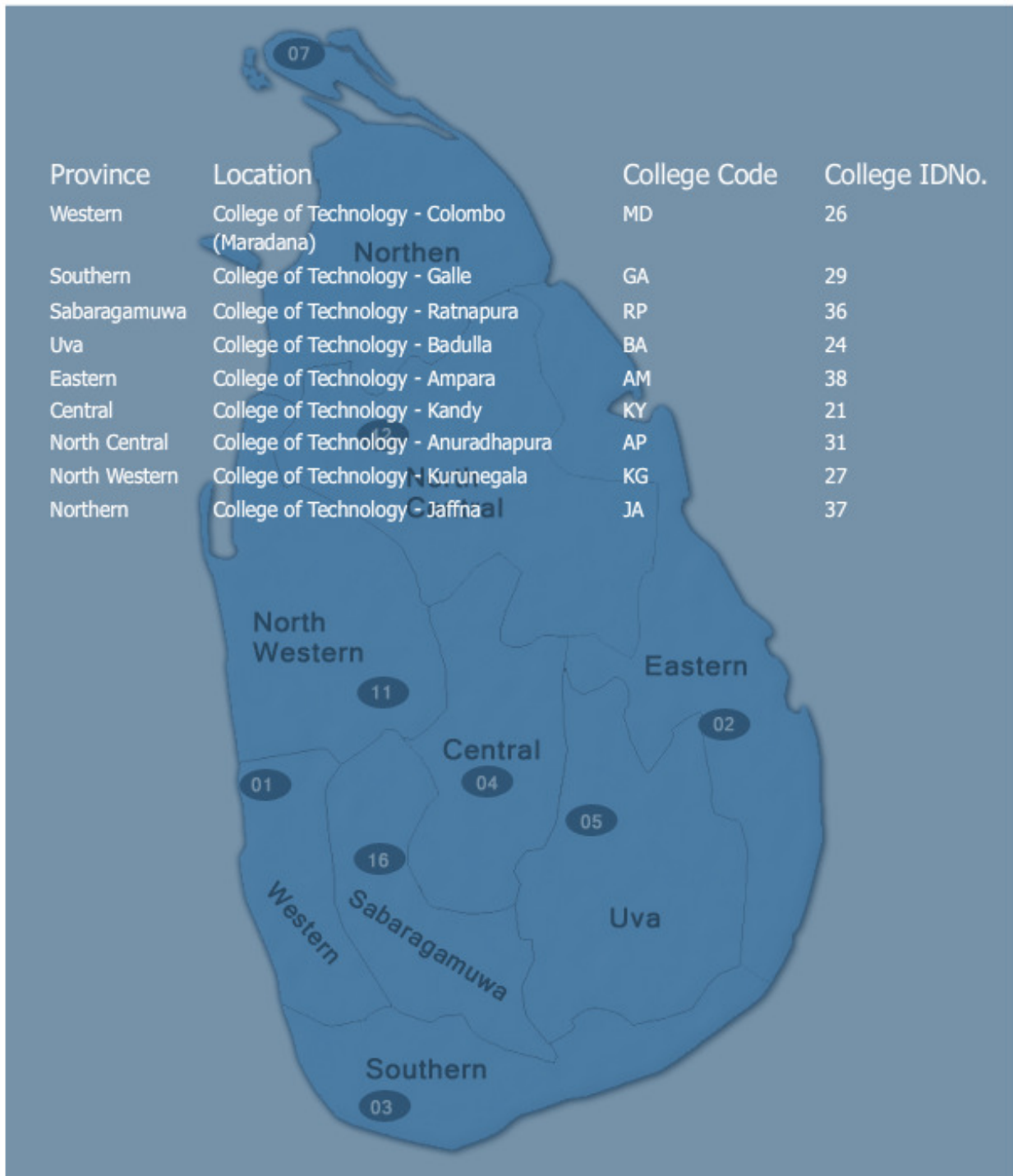
2. ....

33. මෙම පාඨමාලාවල ප්‍රතිඵල ඉහල මට්ටමකට ගෙන ඒම සඳහා ඔබ කරන යෝජනා මොනවාද?

1. ....

2. ....







## Lesson Plan

Title : Introduction to DBMS

Class : Information and Communication Technology – NVQ Level 5

Total Time : 3 hours

Entry Behavior : Knowledge of Use DBMS

Objectives : 1To Know what is the Database

1.1To know Characteristics of the database

<b>Time (minutes)</b>	<b>Content</b>	<b>Teacher Activity</b>	<b>Student Activity</b>	<b>Teaching Aids</b>
0-40	The evolution of database Technology	Describe how to evolution database	Listening	VISIO, MY SQL, SQL Sever
40- 80	TEST- What is the Database	-	Completion of test	
80- 120	Explain Characteristics of the database approach	Demonstration	listening	Model
120- 150	Sketching in characteristics of the database	Tutorial	Sketching	
150- 180	Revise evolution and characteristics of database	Question and answers	Question and answers	