Quality Assurance of the Assessment Process
in Brunei Darussalam Vocational and Technical Education:
Stakeholders’ Perceptions and Future Challenges

Haji Ashri bin Haji Ahmad
BSc(Ed)(Hons)(Brunei) MSc (Distinction)(UK)
April 2007

This dissertation is presented for the degree of Doctor of Education of Murdoch University
I declare that this dissertation is my own account of my research and contains as its main content work which has not previously been submitted for a degree at any tertiary education institution

........................................

(Haji Ashri bin Haji Ahmad)
ABSTRACT

‘Quality’ and ‘quality assurance’ in education have become global issues in the last decade. Educational institutions around the world are focusing on designing and implementing quality assurance systems to ensure students a high quality of education. In many countries, including Brunei Darussalam, the development of a national system of quality assurance in education has sometimes brought confusion and controversy. The main reason for this stems from the conflicting perspectives of different interest groups: mainly governments, administrators and academic staff, but students, employers and the general public also have significant voices. All, of course, are committed to quality but each regards quality in a slightly different way.

This study set out to explore the perceptions of two groups of stakeholders, administrators and teachers, about the quality assurance system and in particular, the quality assurance of the assessment process in vocational and technical education (VTE) in Brunei Darussalam. The study examined the stakeholders’ understanding of the term quality and the significance of quality assurance measures. It assessed the extent to which these measures have been utilised by the Department of Technical Education (DTE) and its Vocational and Technical Education Institutions (VTEIs) and it also examined the challenges facing DTE and its VTEIs in ensuring quality VTE.

A mixed-method research approach was used in this investigation, including document analysis, semi-structured interviews and questionnaires. The results provide insights into stakeholders’ perceptions of quality and a range of purposes for quality assurance system implementation. The effectiveness of the current system
based on an external moderation system generated mixed views. The study identified the lack of a structured comprehensive quality assurance system for the assessment process in the DTE and VTEIs and highlighted ways in which quality assurance of the assessment process measures are currently formulated. Both groups of stakeholders agreed that there are challenges confronting the DTE and its VTEIs. Several recommendations were made to improve the current quality assurance measures. The study was timely in light of the increased interest in shaping quality assurance mechanisms in VTE in Brunei Darussalam.

Overall this study carries implications for a better understanding of quality in VTE and issues related to the implementation of a quality assurance system.
ACKNOWLEDGEMENTS

During my research journey, there were many wonderful people who provided assistance in the preparation and completion of this dissertation.

I would like to extend my sincere appreciation and heartfelt gratitude to the Government of Negara Brunei Darussalam through the Ministry of Education for providing opportunity for in-service training.

I wish to express my immeasurable gratitude and sincere appreciation to my supervisors, Professor Simone Volet and Dr. Rick Cummings, for their invaluable encouragement, guidance and motivation for making the completion of this dissertation a reality. Their exemplary supervision enabled me to gain purpose, confidence, clarity and inspiration in my exploration of the quality assurance concept. They also ensured that this research study was a stimulating, beneficial and positive learning experience.

I am exceedingly grateful to the Director of Technical Education for allowing me to conduct this research within the Department of Technical Education and the five VTE institutions. Moreover, I wish to thank my colleagues in the Department of Technical Education and the five VTE institutions, for their unfailing support, interest and willingness to participate in my research study.

Finally, I am indebted to my family who has helped make my dream a reality. Special thanks and a deep sense of gratitude go to my parents, Haji Ahmad Shaari and Hajah Saadiah Haji Jomel, for their prayers. They helped lay my educational foundation and plant the seeds of knowledge. To my wife, Hajah Monaliza Haji Abdul Halim, and to my children, Ahmad Izzul Muqri, Mirra Izzati Haziqah, Mizza Izzati Farzana and Irdina Firzanah, for their prayers, tolerance, support and encouragement from the commencement to the last pages of this dissertation. Thank you for your constant demonstrations of love.
TABLE OF CONTENTS

DECLARATION i

ABSTRACT ii

ACKNOWLEDGEMENTS iv

LIST OF TABLES ix

LIST OF FIGURES xi

LIST OF APPENDICES xiii

LIST OF KEY ABBREVIATIONS USED IN THE STUDY xiv

Chapter One: OVERVIEW AND SCOPE OF STUDY

1.1 Introduction .................................................................................................................1
1.2 The research problems ..............................................................................................3
1.3 The research questions ..............................................................................................10
1.4 The significance of the study ....................................................................................13
1.5 Organisation of the dissertation ................................................................................14

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction ................................................................................................................16
2.2 Quality and quality assurance in education ..............................................................16
Chapter Three: RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction ............................................................................................................96
3.2 Research approach....................................................................................................96
3.3 Research design .......................................................................................................100
   3.3.1 Researcher’s assumptions ..................................................................................100
   3.3.2 The sample ........................................................................................................104
   3.3.3 Description of data gathering instruments .........................................................107
   3.3.4 The development and implementation of data collection
       instruments ..............................................................................................................116
   3.3.5 The fieldwork ....................................................................................................133
3.4 Data analysis and interpretation procedures .............................................................134
3.5 Quality criteria .........................................................................................................137
3.6 Ethical considerations ..............................................................................................140
3.7 Summary of the chapter ..........................................................................................144
Chapter Four: DATA PRESENTATION AND KEY FINDINGS

Stakeholders’ understanding of the term quality and significance of quality assurance measures

4.1 Introduction ........................................................................................................... 146
4.2 Stakeholders’ understanding of the term quality in VTE ...................................... 147
4.3 The purposes perceived as significant by stakeholders in the implementation of a quality assurance system .......................................................... 156
4.4 Conclusion ........................................................................................................... 164

CHAPTER FIVE: DATA PRESENTATION AND KEY FINDINGS

Current practices of the DTE and its VTEIs in ensuring quality of the assessment process

5.1 Introduction ........................................................................................................... 166
5.2 The current quality assurance measures for the assessment process in the VTEIs and the way they were formulated ............................... 167
  5.2.1 Current institutional quality assurance measures ........................................ 169
  5.2.2 Formulation of quality assurance measures in the DTE and its VTEIs ........ 182
5.3 The effectiveness of the assessment process quality assurance measures as perceived by the stakeholders ................................................... 196
  5.3.1 Current institutional quality assurance measures ........................................ 197
  5.3.2 External moderation system ........................................................................ 200
  5.3.3 The ‘Assessment process and quality assurance’ guidelines ....................... 208
5.4 Stakeholders’ recommendations for improving the current quality assurance measures ................................................................. 213
  5.4.1 Monitoring of quality assurance measures .................................................. 214
  5.4.2 The external moderation system ................................................................. 220
  5.4.3 The ‘Assessment process and quality assurance’ guidelines ....................... 226
5.5 Conclusion ........................................................................................................... 230
Chapter Six: DATA PRESENTATION AND KEY FINDINGS

Current and future challenges facing the DTE and its VTEIs in ensuring quality of VTE

6.1 Introduction .................................................................232
6.2 The challenges faced by the DTE and its VTEIs in ensuring quality of VTE .................................................................233
6.3 The issues related to human resource provision that may affect the implementation of quality assurance measures ....................242
6.4 Conclusion ........................................................................259

Chapter Seven: DISCUSSION AND CONCLUSION

7.1 Introduction .................................................................260
7.2 Major findings and their implications for the future direction of Brunei VTE ........................................................................261
7.3 Limitations of the study ......................................................282
7.4 Implications for further research ...........................................286
7.5 Conclusion ........................................................................289

REFERENCES

APPENDICES
LIST OF TABLES

Chapter Two
Table 2.1  Definitions of quality  89
Table 2.2  Strengths and weaknesses of the various methodologies in quality assurance  92
Table 2.3  Quality assurance strategies for the assessment process  94

Chapter Three
Table 3.1  Criteria for sampling  105
Table 3.2  Sample for interviews and number of questionnaire distributed  106
Table 3.3  Research methodology matrix  108
Table 3.4  The number of target and achieved samples for the questionnaire survey  132
Table 3.5  Fieldwork periods  133

Chapter Four
Table 4.1a  Defining quality in VTE (Administrators)  150
Table 4.1b  Defining quality in VTE (Teachers)  150
Table 4.2a  Significant purposes for implementing a quality assurance system as perceived by administrators  158
Table 4.2b  Significant purposes for implementing a quality assurance system as perceived by teachers  159

Chapter Five
Table 5.1  Stakeholders’ perceptions on the organisation and management of quality assurance at the VTEIs  184
Table 5.2  Stakeholders’ perceptions on the quality assurance implementation processes (for the assessment process) at the VTEIs  186

Table 5.3  Stakeholders’ perceptions on the quality assurance monitoring and reviewing process at the VTEIs  189

Table 5.4  Stakeholders’ perceptions on the physical resources at the VTEIs  190

Table 5.5  Stakeholders involvement in quality assurance measures at the VTEIs  192

Table 5.6  Stakeholders’ perceptions on assessment process quality assurance measures in the DTE  193

Table 5.7  Number and percent of responses of administrators and teachers on the strengths of using the external moderation system  202

Table 5.8  Number and percent of responses of administrators and teachers on the weaknesses of using the external moderation system  203

Table 5.9  The type of monitoring perceived as effective in ensuring quality of the assessment process  217

Chapter Six

Table 6.1  Challenges confronting VTEIs in ensuring quality VTE provision, institutional actions and DTE actions to address the challenges  236

Table 6.2  Are all Brunei VTE staff qualified, professional and competent?  245

Table 6.3  Professional development activities for teachers  250
# LIST OF FIGURES

**Chapter One**

| Figure 1.1 | Diagrammatic presentation of research aims and research questions | 12 |

**Chapter Four**

| Figure 4.1 | Dissertation aim 1 and research questions 1 and 2 | 147 |

**Chapter Five**

| Figure 5.1 | Dissertation aim 2 and research questions 3, 4 and 5 | 166 |
| Figure 5.2 | Structure of research question 3 | 168 |
| Figure 5.3 | Summary of the current quality assurance measures for assessment process in the five VTEIs | 180 |
| Figure 5.4 | Structure of research question 4 | 196 |
| Figure 5.5 | Summary of strengths and weaknesses of the current institutional quality assurance measures | 200 |
| Figure 5.6 | Summary of strengths and weaknesses of the ‘Assessment process and quality assurance’ guidelines | 212 |
| Figure 5.7 | Structure of research question 5 | 214 |
| Figure 5.8 | Stakeholders’ recommendations for improvement in the current quality assurance measures of the assessment process | 228 |

**Chapter Six**

| Figure 6.1 | Dissertation aim 3 and research questions 6 and 7 | 233 |
| Figure 6.2 | Structure of research question 6 | 234 |
| Figure 6.3a | The most pressing issues as identified by administrators | 240 |
| Figure 6.3b | The most pressing issues as identified by teachers | 240 |
| Figure 6.4 | Structure of research question 7 | 242 |
| Figure 6.5 | Issues related to human resource provision that may affect the implementation of quality assurance measures | 257 |
### LIST OF APPENDICES

<table>
<thead>
<tr>
<th>Appendix</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appendix A</td>
<td>Context of study: Vocational and technical education in Brunei Darussalam</td>
</tr>
<tr>
<td>Appendix B</td>
<td>Murdoch University Ethics Committee approval</td>
</tr>
<tr>
<td>Appendix C</td>
<td>Approval letter for conducting the study in DTE and its five VTEIs</td>
</tr>
<tr>
<td>Appendix D</td>
<td>Letter of invitation to participate in the semi-structured interview</td>
</tr>
<tr>
<td>Appendix E</td>
<td>Consent form</td>
</tr>
<tr>
<td>Appendix F</td>
<td>Introduction to interviewee</td>
</tr>
<tr>
<td>Appendix G</td>
<td>Interview guide (feedback sheet for Teachers)</td>
</tr>
<tr>
<td>Appendix H</td>
<td>Interview guide (feedback sheet for Administrators)</td>
</tr>
<tr>
<td>Appendix I</td>
<td>Survey questionnaire</td>
</tr>
<tr>
<td>Appendix J</td>
<td>Results of survey questionnaire</td>
</tr>
</tbody>
</table>
## LIST OF KEY ABBREVIATIONS USED IN THE STUDY

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCGCE</td>
<td>Brunei-Cambridge General Certificate of Education</td>
</tr>
<tr>
<td>BDTVEC</td>
<td>Brunei Darussalam Technical and Vocational Education Council</td>
</tr>
<tr>
<td>BTEC</td>
<td>Business and Technology Education Council</td>
</tr>
<tr>
<td>C&amp;G</td>
<td>City and Guilds of London Institute</td>
</tr>
<tr>
<td>DTE</td>
<td>Department of Technical Education</td>
</tr>
<tr>
<td>HND</td>
<td>Higher National Diploma</td>
</tr>
<tr>
<td>ITB</td>
<td>Institute Technology Brunei</td>
</tr>
<tr>
<td>MKJB</td>
<td>Maktab Kejuruteraan Jefri Bolkiah</td>
</tr>
<tr>
<td>MOE</td>
<td>Ministry of Education</td>
</tr>
<tr>
<td>MTSSR</td>
<td>Maktab Teknik Sultan Saiful Rijal</td>
</tr>
<tr>
<td>ND1</td>
<td>National Diploma Year 1</td>
</tr>
<tr>
<td>ND2</td>
<td>National Diploma Year 2</td>
</tr>
<tr>
<td>NPAC</td>
<td>National Programme Advisory Committee</td>
</tr>
<tr>
<td>NTC2</td>
<td>National Trade Certificate Level 2</td>
</tr>
<tr>
<td>NTC3</td>
<td>National Trade Certificate Level 3</td>
</tr>
<tr>
<td>NVC</td>
<td>National Vocational Certificate</td>
</tr>
<tr>
<td>PDEC</td>
<td>Programme Development Evaluation Committee</td>
</tr>
<tr>
<td>PDS</td>
<td>Programme Development Section</td>
</tr>
<tr>
<td>PLM</td>
<td>Pusat Latihan Mekanik</td>
</tr>
<tr>
<td>PND</td>
<td>Pre-National Diploma</td>
</tr>
<tr>
<td>PPDS</td>
<td>Programme Planning Development Section</td>
</tr>
<tr>
<td>SB</td>
<td>School of Business</td>
</tr>
<tr>
<td>SVNRC</td>
<td>Sekolah Vokasional Nakhoda Ragam</td>
</tr>
<tr>
<td>SVSB</td>
<td>Sekolah Vokasional Sultan Bolkiah</td>
</tr>
<tr>
<td>SVW</td>
<td>Sekolah Vokasional Wasan</td>
</tr>
<tr>
<td>UBD</td>
<td>Universiti Brunei Darussalam</td>
</tr>
<tr>
<td>VTE</td>
<td>Vocational and Technical Education</td>
</tr>
<tr>
<td>VTEIs</td>
<td>Vocational and Technical Education Institutions</td>
</tr>
</tbody>
</table>
CHAPTER ONE

OVERVIEW AND SCOPE OF STUDY

1.1 Introduction

In Brunei Darussalam, post secondary institutions such as vocational and technical education institutions have experienced significant changes over the last two decades. There has been a tremendous increase in the number of students applying for enrolment and in the student population (Department of Technical Education (DTE), 2006a), but at the same time a reduction per student in real terms, in government funding. There has also been a diversification of organisational roles and expectations in the Department of Technical Education and in the vocational and technical education institutions and, in addition, private training providers have been established which will eventually lead to increased competition.

As in many other countries throughout the world, Brunei Darussalam’s vocational and technical education institutions (hereafter VTEIs) are under pressure to find effective and efficient ways of meeting the requirements of stakeholders while at the same time, retaining values and practices consistent with their role in the
communities they serve. This environment requires VTEIs to clearly identify their future direction, establish relevant and rigorous strategic responses to the operating environment, and determine frameworks and strategies to capitalize on competitive advantage. It has also increased the need for continuous commitment to the pursuit of quality through systematic improvement strategies for the delivery of quality vocational and technical education (hereafter VTE).

The primary purpose of this study was to understand and compare the current quality assurance policies of the assessment system of VTE in Brunei Darussalam as perceived by the two groups of stakeholders, the administrators or VTE policy makers and the teachers or the VTE implementers. This was carried out in order to gain insight into current practices and in particular to assess whether quality assurance policies are perceived to be utilised effectively by the Department of Technical Education (hereafter DTE) and its VTEIs to ensure the provision of quality VTE in Brunei Darussalam (hereafter Brunei).

This chapter presents an overview of the whole study. It is divided into five sections. Section 1.1 introduces the subject and the purpose of the study. Sections 1.2 and 1.3 provide information about the research problems and the research questions, respectively. The significance of the study in general and for Brunei in particular is discussed in Section 1.4 and Section 1.5 outlines the organisation of the dissertation.
1.2 The research problems

In Brunei, over the past few years, there has been increasing interest in the issue of ‘quality’ and ‘quality assurance’ in education, and this includes the field of VTE. The Government of Brunei believes that VTE will provide the required skills to assist in the socio-economic development of the country (Brunei’s Ministry of Education (MOE), 1992). In its 20 year strategic plan (DTE, 2004), the DTE aims to provide a comprehensive, quality and relevant technical education system offering programmes and skills from National Trade Certificate (NTC) to diploma and degree level. Courses would also include skills training programmes, to assist technologists and professionals meet the skill and manpower needs of Brunei.

The DTE also aims to set up a quality assurance system for the Brunei Darussalam Technical and Vocational Education Council (BDTVEC) by the year 2008. The BDTVEC is the technical and examination agency in Brunei, established for the certification, accreditation and validation process of VTE programmes. The increasing focus on ‘quality’ and ‘quality assurance’ issues by the DTE was also highlighted when the Department, through the Ministry of Education, awarded a scholarship to the researcher to conduct a study about the quality assurance of the assessment process in VTE in Brunei. In 2006, the DTE also set up a new division under its organisational structure, the Quality Assurance Division, responsible for the quality assurance aspects of administration, resources and academic matter in the DTE and its VTEIs. A description of the background information for the DTE and the BDTVEC can be found in Appendix A.
In its attempt to achieve quality VTE provision in Brunei, the DTE has focussed on the importance of students’ assessment and the need to ensure quality in assessment practice. Sale (2003) identified a number of interrelated factors that contribute to this development, and these factors may also explain the increasing focus by the DTE on students’ assessment. The first factor, according to Sale, is the pressure on educational institutions or education providers to be accountable for their products, and this has given assessment a high profile. Educational institutions, according to Sale, need to be able to justify public expenditure in terms of value for money outputs. The quality of teaching and the cost-effective use of resources are rightly important issues in this context and it is assessment that largely defines the value of accredited educational programmes. Sale contends that if assessment practice lacks quality, questions will arise about the value placed on the qualifications being accredited. Another factor is the major curriculum developments in competency-based programmes which have shifted the emphasis from issues of curriculum delivery to that of valid, reliable and cost-effective assessment outcomes.

It is increasingly recognised that people learn from a variety of contexts in their own ways and at their own pace. What is important is being able to ensure that learning can be measured accurately, irrespective of how that learning has been derived. The third factor mentioned by Sale (2003), which may have contributed to the increased focus on assessment, is the ability of educational institutions to compete for student numbers or types of student. In order to attract students, these institutions need to show clearly that student needs and interests will be professionally catered for.

In a report published by the DTE (DTE, 2002), it was acknowledged that most departments in VTEIs in Brunei do not possess a structured comprehensive quality
assurance process to ensure quality as well as the validity and reliability of their students’ assessment process. The report also acknowledged that some departments in some of the VTEIs make use of an ‘internal moderation form’ to gauge the validity of an assessment paper. However, it was also reported that in most departments, teachers set the assessment tasks without any validity check. The monitoring of assessment quality, as mentioned in the 2002 report, is the sole responsibility of the departments concerned in the various VTEIs. According to the report, the DTE is not in a position to enforce and streamline the present system due to the lack of personnel. The DTE, however, appoints overseas external moderators (international experts in their own field) from the United Kingdom and Australia. These external moderators are typically appointed by the BDTVEC, but in almost all cases, VTEIs have taken part in their nomination (refer to Appendix A for details on roles and responsibilities of the Council).

The external moderators’ core functions are site visits and report writing regarding their visits to VTEIs. In most cases, they draft their reports in collaboration with the teachers, a process which some external moderators viewed as constructive (DTE, 2006a). These external moderators examine the course contents, the students’ work, as well as the teachers’ preparation and assessment schemes. Overseas external moderators who visit the VTEIs normally moderate the examination papers only after the examination or assessment has been conducted. Furthermore, these external moderators visit the institutions only once a year. Thus any inconsistencies discovered by them are too late to rectify for current students. Furthermore, their visits typically cover between three to seven days which according to some external
moderators, as well as administrators and teachers of the VTEIs, is insufficient (DTE, 2002; DTE, 2006b).

A study of the external moderators’ reports highlighted some areas of concern in the programmes such as lack of teaching and learning materials, for example textbooks, equipment and tools, lack of library resources, limited access to computers as well as the lack of classrooms. A number of these overseas external moderators also highlighted their concerns on the quality of the assessment process. The issues they raised may have an impact on the quality of the programmes delivered by the institutions, as the following selected quotations from several overseas external moderators indicate (DTE, 2006b):

… in a few cases, … in the same unit, two groups were taught by different tutors and had different assessments.

I have concerns that different lecturers are assessing oral and written (written especially) at different levels …

… core application subjects … are assessed very differently in the two colleges. The possibility of common End Test at the two colleges could be explored.

… the internal processes that are used to ensure this quality need to be documented and appropriate forms and checklists need to be developed. … My comment is that there are some assessment instruments (notably some examination papers) that need a little more quality control.

From an examination of the evidence provided, I obtained a sense that the quality processes of the assessment system that I observed on my previous visit had lapsed a little, and in some instances were not being observed.

Internal moderation system is not being implemented widely across the department.

There is a need to apply consistent standards in assessment – for example, the use of a standardized assessment briefing sheet, containing assessment criteria, common skills and assessment tasks. Similarly, whilst a common grading feedback sheet exists, this is not always being used by staff.
As highlighted by some overseas external moderators in their reports (DTE, 2006b), the assignments or projects given to students vary from institution to institution for the same course and year of study. Additionally, the criteria used to assess these assignments or projects are not standardised or clearly spelt out. Thus the final grade or mark that a student obtains for a similar course of study but from two different institutions may not have the same value or meaning. This is basically due to the variations in assignment type or in the assessment criteria (DTE, 2002).

The implications of these variations can have a far reaching adverse effect on the students, the VTEIs concerned, the DTE and ultimately, the quality of the nation’s manpower in technical and vocational fields. The inconsistencies that the DTE has in the system can cast doubts on the assessment grades of the students. In fact, stakeholders may question the validity of the grades of assessments conducted by the VTEIs in Brunei should they come to know of the present inconsistencies.

For students, a high quality assessment system should provide the right emphasis on the different aspects of a course, give students appropriate feedback, and result in a qualification that is well understood. When students complete courses or sequences of courses, assessments can be used to certify that students have achieved a required level of mastery or have met industry standards. With the right procedure in place, students can be confident in the quality of their training. For teachers, the results of assessments can be used to monitor the progress of students, identify individual students’ weakness, diagnose their needs and make instructional plans. Assessments are used by policy makers in education to judge the quality of the education system. Assessment can provide evidence to the extent of whether the learning outcomes of
a programme have been achieved for the purposes of programme review or programme accreditation (Shay & Jawitz, n.d.). The general public looks to assessment to provide information for various purposes, in particular, employers can have confidence in the students’ qualification and are able to judge the quality of the education system in meeting job requirements.

The lack of uniformity in the standard of awards may bring confusion to various stakeholders. For the students, assessment results will have a profound effect on their life chances, not just in the first years after leaving the institutions. The inconsistencies and variations caused by the lack of a proper control system can affect a student's opportunity in getting a job after leaving an institution or affect their promotional prospects and potential to further their studies. Employers, on the other hand, may have difficulties in interpreting the capability of graduates from various VTEIs.

Quoting a paragraph from the Moderators reports, one moderator wrote, ‘many of the [students’ assessment] issues raised in this report stem from the current lack of a centralised quality assurance system, detailing assurance mechanism operations’ (DTE, 2006b). The importance of a system of quality assurance in a certification and assessment system was also emphasised by the Director of the DTE (Mohd Daud, 2002). According to Mohd Daud, a quality assurance system will ensure credibility, validity, reliability and integrity of Brunei’s VTE system. He emphasised that in Brunei’s VTE system, the National Programme Advisory Committees (NPACs) and overseas external moderators partially helped in this process, however, he
recommended a built-in quality assurance system for the assessment process be put in place in all VTEIs.

Up to the time of this study, there had been no systematic investigation conducted locally in the areas of quality and quality assurance, particularly with regards to VTE. Since its inception in 1970, VTE in Brunei has had very few guidelines or policies governing its quality assurance processes. Many of the current policies and practices in Brunei’s VTE have been adapted from foreign accrediting bodies such as the Business and Technology Education Council (BTEC), City and Guilds (C&G) of London Institute, the Royal Society of Arts (RSA), Pittmans Examination Institute and the London Chamber of Commerce Institute (LCCI). When VTE was first introduced in Brunei in 1970 and up until 1992, all technical and vocational qualifications were provided by these accrediting bodies (see Appendix A for details). These policies and practices have not been examined since they were first implemented and it has been taken for granted that they produce positive outcomes. The limited interest in examining these policies and practices is perhaps due to a lack of expertise in quality assurance issues but also because in the period immediately after the formation of the BDTVEC, the focus was on student enrolment, the syllabi and certification, rather than the assuring the quality of VTE provision. The success of this focus became evident when the number of programmes offered by VTEIs reached 84, and the increased interest in these programmes meant 35% of the applicants had to be rejected due to limited placements (DTE, 2006a). As the DTE matured, quality became a concern, and accountability questioned.
In view of all these issues, there is thus a strong case for the DTE to produce a clear assessment policy for its programmes. This policy will provide coherence to the activities of its teachers, subject departments and institutions in the handling of any quality assurance measures. In light of the importance of a quality assurance system for the Brunei VTE, this study was carried out to examine the views of the two groups of stakeholders, the administrators and the teachers, about how they perceived the current quality assurance measure, its effectiveness, and issues related to the quality assurance of the assessment process. The findings from this study can hopefully be used to formulate a new quality assurance system or at least modify the current quality assurance measures to make them more effective and to suit VTE in the Brunei context.

1.3 The research questions

The study is to develop insight into Brunei’s VTE assessment process quality assurance policies as perceived by the two groups of stakeholders, the administrators or policy makers and the teachers or the implementers. The aims of the study and the research questions are as follows:

1) To examine stakeholders’ understanding of the term quality and significance of quality assurance measures.

Research Questions

1) How do the stakeholders understand the term quality in VTE?

2) What purposes are perceived as significant by stakeholders in the implementation of a quality assurance system?
2) To establish stakeholders perception of the current practices of the DTE and its VTEIs in ensuring quality of assessment process under the authority of the BDTVEC.

Research Questions

3) What are the current quality assurance measures for the assessment process in the VTEIs and how are they formulated?

4) How do stakeholders currently perceive the assessment process quality assurance measures?

5) What recommendations do the stakeholders have to improve the current quality assurance measures?

3) To determine the current and future challenges facing the DTE and its VTEIs in ensuring quality of VTE.

Research Questions

6) What are the challenges faced by the DTE and its VTEIs in ensuring quality of the VTE?

7) What are the issues related to human resources that may affect the implementation of quality assurance measures?

The diagrammatic presentation of research aims and research questions are presented in Figure 1.1.
Research Question 1: How do the stakeholders understand the term quality in VTE?

Research Question 2: What purposes are perceived as significant by stakeholders in the implementation of a quality assurance system?

Research Question 3: What are the current quality assurance measures for the assessment process in the VTE institutions and how are they formulated?

Research Question 4: How do stakeholders currently perceive the assessment process quality assurance measures?

Research Question 5: What recommendations do the stakeholders have to improve the current quality assurance measures?

Research Question 6: What are the challenges faced by the DTE and its VTEIs in ensuring quality of VTE?

Research Question 7: What are the issues related to human resources that may affect the implementation of quality assurance measures?
1.4 The significance of the study

It is expected that the study will further enhance the concept of quality in Brunei’s VTE from stakeholders’ perspectives. A better understanding of definitions of quality in VTE will help shape quality assurance mechanisms in VTE in Brunei. Another significant aspect of the study will be the administrative impact. The information that will be generated from the study will be significant for the administrators or policy makers. It should enable administrators and/or policy makers of VTE in Brunei to understand the issues associated with the quality assurance system, the process and implementation of the system in general and in the implementation of a quality assurance system for the assessment process in particular. They would have more than raw data on which future policies and practices could be based and further improved because this data has been systematically collected and analysed and its meaning extracted to make sense of the situation.

The study will also bring to light the possible constraints to be faced by the DTE and its VTEIs, in particular, in the implementation of a formal quality assurance system, a system that will be used consistently by all VTEIs. It is anticipated that through the results and recommendations from the study, the relevant authorities will realise that there are a number of important practical considerations which can impede the success of the implementation of quality assurance measures. The knowledge from the study findings might help increase the effectiveness of communication among administrators and implementers as well as other stakeholders. A mechanism through which knowledgeable stakeholders can collaborate on the specific roles and
responsibilities within quality assurance development in the VTE sector can be set up with the aim of providing a quality VTE in Brunei.

The findings of this study will not only enrich the data in this area but it may also stimulate further research studies in the area locally and abroad. Finally, the resulting improvement in VTE quality assurance policies and practices as a result of the study is expected to enhance the effectiveness and the accountability of the Brunei’s VTE.

1.5 Organisation of the dissertation

This dissertation is organised in seven chapters. This chapter provides an introductory rationale for this study. It presents the topic of the study, the chapter’s content, the research problems, the research questions, the significance of the research, and the organisation of the dissertation.

Chapter Two presents a review of selected literature and research drawn from the field of quality and quality assurance and the quality assurance process in students’ assessment system. It also establishes how this study fits into the body of literature and where the study will break new ground.

Chapter Three describes the research methodology used in the study. It discusses the mixed methods techniques of conducting research; the research design and methodology of the study which include sampling, the procedures utilised in data collection which include documentary analysis, semi-structured interviews, a survey questionnaire, and data coding and analysis.
Chapter Four presents the data obtained from the various data collection techniques employed in the study and identify key findings related to the research questions 1 and 2. Chapter Five presents the data obtained and identify findings to the research questions 3, 4 and 5 while Chapter Six discusses the key findings of the study arising from research questions 6 and 7.

Chapter Seven comprises an overview and discussion of the findings of the seven research questions. It draws some major implications for future direction for Brunei VTE. The chapter concludes by discussing the limitations of the study and implications for further research.
CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter will review the international literature on the concept of quality and quality assurance. It will then focus on the quality assurance approaches in assessment systems. The literature review is divided into four parts. Section 2.2 of this review will focus mainly on quality and quality assurance in education. Even though the overall purpose of this study was to understand the quality assurance policies of the assessment system of the VTE in Brunei, it was deemed necessary to first examine and understand the quality assurance system in education in general. In Section 2.3, literature on students’ assessment will be reviewed, in general, and the quality assurance aspects of the assessment process specifically. Finally, the findings of the literature review are summarised and the utilisation of such findings in the conduct of this study are explained in Section 2.4.

2.2 Quality and quality assurance in education

As labour costs rose and as competition for the international market share increased since the 1990s, organisations in general, began to look at different ways of
working. Workers themselves began to be transformed and invited to engage in their own transformation in response to the changed conditions of their workplaces. According to Blom (2001), the contemporary or 'new' economy is inhabited by workers whose participation in the economy equips them to contribute. Blom (2001) contends that quality is now the marker for what the market produces (such as educational qualifications), as well as the marker of the worker's contribution to the economy (such as customer service). A worker needs to produce quality while at the same time, this same worker, as a consumer, may demand quality. Due to the increased emphasis on quality, the educational sector in many countries has shown over the past two decades, increased levels of interest in the development of more effective, systematic and scientific means of monitoring the performance and outcomes of education systems. More educational institutions are also focusing on the effectiveness of teaching and learning processes, as well as students’ educational outcomes (Blom & Meyers, 2003).

According to Feigenbaum (1994, p. 84), ‘quality of education’ is the key factor in ‘invisible’ competition between countries since the quality of products and services is determined by the way ‘managers, teachers, workers, engineers and economists think, act and make decisions about quality’. In the same year, Craft (1994, p. viii) identified the need for ‘… credible academic and professional awards’ … which have led ‘… national governments and tertiary institutions themselves to establish sophisticated mechanisms to … improve the quality of the education offered and the awards granted.’

The focus of this study was to understand the quality assurance of the assessment process in Brunei VTE. The literature review will first review the concept of quality
and quality assurance in education and issues associated with the quality assurance systems in general, to better understanding the aspects of the quality assurance of the assessment process. Section 2.2 is divided into six subsections. Subsection 2.2.1: Defining quality in education, examines in some detail the various meanings given to the concept of quality in education, their similarities and differences. This examination also focuses on the importance of the definitions of quality in formulating approaches in ensuring quality in education. Subsection 2.2.2: Quality in vocational education and training, examines the way quality is defined in vocational and technical education. Subsection 2.2.3: Who should determine quality? identifies the various stakeholders in education, their objectives and their expectations. Subsection 2.2.4: Defining quality assurance, examines the various meanings given to quality assurance by the various authors and organisations, and highlighting the similarities and differences in their definitions. This section also discusses the factors which explain the increased importance of the quality assurance movement as well as the purposes of the quality assurance mechanisms. Subsection 2.2.5: Approaches to quality assurance, identifies the various approaches taken around the world towards ensuring quality. This examination also attempts to focus on the various quality assurance methodologies. Subsection 2.2.6: Criticisms of quality assurance systems, looks at the various critiques made by several authors on the quality assurance system. These six subsections will be discussed in turn.

### 2.2.1 Defining quality in education

The international literature on quality and quality assurance in education, according to Harman (1996), reveals considerable difficulties and ambiguities in the definition of a number of key terms. This, according to Harman, is not surprising as quality
deals with a number of complex notions and only in the widest sense is there broad agreement about what quality is. Apart from this lack of agreement, authors interested in researching quality issues differ significantly in their views about the way a number of key concepts used in the current debate about quality were defined. This subsection looks at the ways various authors and organisations define the term quality in education and groups these definitions according to how these authors and organisations approach the definition.

In discussing the concept of quality, Harman (1996) indicated that ‘many see quality as a relative concept, meaningful only from the perspective of particular people at particular points of time, measured against some either explicit or implicit standard or purpose’ (p. 4). Aspin and Chapman (1994) stated that the concept of quality does not necessarily lend itself to a straightforward interpretation. While quality is a widely used concept in industry where clearly definable products exist, the concept of quality is more difficult to define in education. Hager (1997, p. 6) states that ‘there is no one universally applicable answer to the question 'what is quality?' since quality is a function of many factors which vary with the nature of the organisation, its particular purposes, its overall philosophy, the nature of its client, ...’. Lakomsi (1998, p. 233) in prolonging the debate, suggests that ‘To use a well known, but eminently serviceable cliche, quality, like beauty, is in the eye of the beholder. Depending on the social, political, economic or educational context in which discussion on quality is conducted, it will look different, mean different things and will lead to different practical proposals of how to bring it about or to maintain it’. In a similar tone, Van den Berghe (1997) stated that the issue of quality in education
needs to be considered from pedagogical, economic, sociological, customer and management perspectives.

In an attempt to define quality in education, several organisations and authors put forward various definitions. The Australian National Audit Office (2001, p. 5) states that ‘Its broadest sense (quality) incorporates assessment of outputs, processes and outcomes and takes into consideration the relevant objectives and resources. Assessment of quality involves the use of information gathered from key interests ... to identify differences between expectations and experience of users’. Harman and Meek (2000, p. 29), in a higher education context define quality as ‘a judgement about the level of goal achievement and the value and worth of that achievement. It is also a judgement about the degree to which activities or outputs have desirable characteristics, according to some norm or against particularly specified criteria or objectives’. In introducing the notion of quality, Heywood (1998, cited in Gibb, 2003) stated that ‘What in fact is offered by a 'quality' approach is a coherent framework for thinking about the management and improvement of organisations - a system view of the organisation’ (p. 10).

In defining quality, Garvin (1988) identifies five approaches. They are transcendent (innate excellence), product-based (some attribute), user-based (needs), manufacturing based (conformance to requirements), and value-based (cost and prices). Garvin’s classification mainly applies to industry, and appears to have little relevance to education. However, it has been widely applied in the education sector in the absence of a more suitable approach. Other authors (Baker, 1997; Green, 1994; Harvey & Green, 1993; Harvey & Knight, 1996) discussed the nature of quality in the context of education and identified five ways of thinking about quality:
Quality as ‘exceptional’, Quality as ‘perfection’ or ‘consistency’, Quality as ‘fitness for purpose’, Quality as ‘value for money’, and Quality as ‘transformative’. These groups of definition will be discussed in turn.

**Quality as ‘Exceptional’**

According to the Oxford English Dictionary (Oxford University Press, 2006), quality is defined as ‘general excellence’ or ‘the degree of excellence of something as measured against other similar things’. The exceptional notion of quality takes it as given that quality is distinctive (Green, 1994; Harvey & Green, 1993), exclusive (Green, 1994) or excellence (Baker, 1997). Garvin (1988, p. 41) in defining quality described it as being ‘both absolute and universally recognisable, a mark of uncompromising standards and high achievement … often quality cannot be defined precisely’. In line with other authors’ definition of quality relating to this approach, Yong and Wilkinson (2002) identified quality by its exclusivity, and inaccessibility to most people. Baker (1997) emphasised that quality means something that exceeds a particular standard, which mainly focus upon high quality inputs: the best students, the best academics, the level of its resources and the reputation of the educational institutions. The standards conception of quality in Baker’s view refers to the absolute benchmark against which an outcome or product is checked at any given time. This approach assumes that standards are objective and relatively static and that quality will be improved if the standards are raised.

**Quality as ‘Consistency’**

The consistent view of quality is similar to traditional notions of excellence in some respects. This notion focuses on process and sets specifications that it aims to meet
perfectly (Cosby, 1984; Van Berkel & Wolfhagen, 2002). The perfection approach or the right every time approach (Baker, 1997; Harvey, 1998) defined quality as the absence of errors (Green 1994), where once the design or a specification has been established by the producer, any deviation from it, means a reduction in quality. According to Yong and Wilkinson (2002), the ‘conformance to specifications’ approach or view of quality is a manufacturing-based outlook.

**Quality as ‘Fit for purpose’**

Fitness for purpose was the definition of quality proposed by Ball (1985). Guaspari (1985) and Yong and Wilkinson (2002) claim that the extent to which a product or service is meeting and/or exceeding the expectations of customers is currently the most widely used definition of quality. This approach implies that quality is relative to a particular activity, product or service. The judgement as to whether an activity, a product or a service is of quality depends on whether it successfully meets or serves the purpose of the user (Juran, 1988) or for which it is carried out (Baker, 1997). The addition of 'customer', 'user' or 'market' to the definitions of quality, according to Yong and Wilkinson (2002) extends its meaning to a wider dimension, in particular it ensures that firms and educational institutions are more externally focused.

The fitness for purpose definition of quality brought up the issue of who should determine the purpose, and whether the purpose is of value itself. Baker (1997) mentioned two approaches to this issue. The first is to see fitness for purpose as determined by meeting the customer's specifications. However, this approach of fitness for purpose has been less prevalent, mainly because the students as the customers, in this case, do not generally specify their needs very well. This concern
will be discussed in Section 2.2.3. The second approach, which has been the focus in education, is based around meeting or achieving a given mission of an organisation or activity. This approach has the support of several other authors such as Harvey (1999) and Van Berkel and Wolfhagen (2002). Harvey stated that in education, fitness for purpose is usually based on the ability of an institution to fulfil its mission or a programme of study to fulfil its aim. A course of study in an educational institution is of satisfactory quality when it satisfies requirements of particular standards or levels of achievement for the purpose it was designed. Van Berkel and Wolfhagen (2002) while supporting this view stated that the attractive notion of this view of quality is that it implies relative autonomy for educational institutions to define their purpose in the institution’s objectives and missions. This, according to the authors will encourage diversity and variability, as opposed to uniformity in quality.

**Quality as ‘Value for money’**

Value-based definitions of quality describe quality in terms of costs and prices. Based on this definition, a quality product is one that provides performance, requirements and conformance at an acceptable price or cost (Yong & Wilkinson, 2002). This definition is closely related to the customer specification approach to fitness for purpose, in that customers are specifying what is of value to them. Baker (1997) suggests an alternative view of what is meant by value as seeing value from the perspective of society and the community, rather than the individual. Baker also emphasises that the notion of quality as something which is valuable is linked to concepts such as accountability where students, government and the community wish to ensure that what they paid for meets their needs. It is also linked to concepts
such as effectiveness and efficiency in the use of resources and management (Green, 1994). This definition sees quality in terms of return on investment. If the same outcome can be achieved at a lower cost, or a better outcome can be achieved at the same cost, then the customer has a quality product or service.

Quality as ‘Transformative’

The fifth way of thinking about quality is quality as ‘transformative’. The transformative notion of quality involves consideration of fundamental changes in form, including cognitive change or transcendence. Baker (1997, p. 4) feels that the notion of ‘transformative’ quality appears to be ‘very apt for education: … as education is not a service where something is done for the consumer, but where something is to do to and with the student’.

This notion of quality stresses the value added notion of quality, a measure of the extent to which the educational experience enhances the participants’ knowledge, skills and abilities. Baker (1997) indicated that this notion of quality also underpins concepts such as student centred learning. Harvey (1998, p. 244) in explaining transformation as a definition of quality in education states that ‘Transformative education is about 'adding value' to the students by enhancing their attributes but it is also about empowering them as critical, reflective, transformative, lifelong learning, … Education is not a service for a customer - but an ongoing transformation of the participant. … Education is a participative process. Students are not customers or consumers, they are participants’.
Overall, Harvey (1999) in discussing quality mentioned the interrelationship between quality and standards which depend on the approach to quality and the particular notion of standard. According to Harvey, the exceptional approach to quality emphasises the maintenance of academic standards through the summative assessment of knowledge. The approach presumes an implicit, normative ‘gold-standard’ both for learning and for research. The perfection approach, he added, emphasises consistency in external quality monitoring of academic, competence and service standards while the fitness for purpose approach relates standards to specified purpose-related objectives. This requires criteria-referenced assessment of students. The value for money approach, he says, places emphasis on a good deal for the customer and requires the maintenance or improvement of academic standards, graduate abilities and research output, for the same unit of resource. While the transformative approach, according to him, uses standards to assess the enhancement of students in terms of academic knowledge and a broader set of transformative skills, such as analysis, critique, lateral thinking, innovation, and communication. Such quality perceptions may apply, alone or in combination, to any type of product or service in education and this includes vocational education and training. But different people may hold different views about the same object. Harvey and Green (1993) concluded that it is not possible to talk about quality as a unitary concept. Quality, according to them, must be defined in terms of a range of qualities, for example, the criteria that each stakeholder uses when judging quality, and for these views, whether they are similar or different, to be taken into account when assessments of quality are undertaken.
A few authors define quality quite narrowly, as it is by the effective school movement in the Netherlands where quality should be demonstrated by results (Nielsen & Visser, 1997). Calder and Gordon (1996, cited in Blom & Meyers, 2003), who regard better student retention as the key indicator of improved educational quality, agree that quality and efficiency should be defined in student success terms, that is, that students will persist with their studies as long as they perceive that their college education is helping them achieve their personal and career goals.

In summary, many definitions of quality in education exist, testifying to the complexity and multi-faceted nature of the concept which is embedded in a political, cultural and economic context. This subsection discussed the approach used by Baker (1997), Green (1994), Harvey and Green (1993) and Harvey and Knight (1996) in defining quality in education where they identified five ways of thinking about quality: Quality as exceptional, Quality as perfection or consistency, Quality as fitness for purpose, Quality as value for money, and Quality as transformative. Quality as excellence is a comparative attribute determined in relation to similar qualifications, providers or activities. Those programmes and activities scoring comparatively highly on a determined scale are judged as being excellent and therefore of high quality. Quality as consistency focused on the right every time approach, on process and sets specifications that it aims to meet perfectly. If consistency can be achieved then quality can be attained by all. Fitness for purpose definition of quality assesses the performance of a qualification, programme or activity against its stated outcomes or intentions and it is usually based on the ability of an institution to fulfil its mission or a programme of study to fulfil its aims. Value
for money definitions of quality focus on customer and stakeholder perceptions of whether a programme meets or exceeds expectations in relation to the time and money invested. A fifth view of quality sees quality as transformative. Education is not a service for a customer but an ongoing process of transformation of the participant.

The next subsection explores the ways vocational education and training define the term quality.

### 2.2.2 Quality in vocational and technical education

The contribution of vocational education to economic growth has been identified by many authors. Braden and Paul (1977) have argued that this contribution is derived in two main ways. First, it has the potential to raise the overall quality of the labour force, defined to include all occupations from the highest to the lowest skill level. Second, an upgrading of the educational background of the population as a whole should accelerate the rate at which a society’s stock of knowledge advances. Vocational education is also considered as being important with respect to its role in the economic development of a country. According to Bruno and Wright (1980), the term economic development in this case meaning those planned sequences of programmes and activities designed to improve the quality of life in a region or a community. The quality of life outcome, according to them, refers to the process of expanding the productive capacity and improving the overall welfare of the citizens of an area or a region.
Due to its importance, the quality of VTE has been a long-standing concern shared by policy makers, institutions, administrators, teachers, employers and students, those who may be considered to be its stakeholders. Hager (1997) in a review of research into quality assurance in VTE stated that most of the research relating to quality in the VTE sector was concerned with the business of establishing quality assurance measures and was therefore developmental, rather than evaluative. He added that the research available in the VTE sector draws on experience from the private and some parts of the public sectors with researchers looking to its possible applications to the VTE sector.

The concept of quality, as mentioned earlier, is a multi-faceted one, and one would expect that its meaning within the VTE environment is also open to argument and negotiation as it is in other social, economic and political contexts. The Australian National Training Authority (ANTA) (2005, p. 17) defined quality in VTE as ‘the ability of a set of inherent characteristics of a product, system or process to fulfil requirements of customers and other interested parties’. Seyfried, Kohlmeyer and Futh-Riedesser (1999) on the other hand, define quality aspects in VTE according to the quality of the training process itself, the objectives and contents of vocational training and the context and conditions within which the vocational training takes place. These authors also noted that since quality is composed of different factors depending on the point of view of the stakeholders, it is possible for quality indicators to focus on a variety of factors such as trainers’ qualifications, physical resources in classrooms, participants’ evaluation of the course, usefulness of the course to participants in terms of motivation and employment prospects, and relevance of acquired qualification for the workplace. Their perception is somewhat
similar to Visser (1994, cited in Blom & Meyers, 2003), who describes quality in VTE as being broadly comprised of not only output but also the professional status of teachers, the nature of training institutions, the teaching and learning process, improvement and innovation processes and the attributes of incoming students.

Even before the emergence of ‘modern’ quality approaches and concepts, and even without adopting a formal quality approach, according to Blom and Meyers (2003), the education and training world had already developed its own quality tradition which includes the development of methods, norms, procedures and standards that allows them to ensure the quality of their provision. Van den Berghe (1997) summarised the different viewpoints from which quality in education and training had been considered. These viewpoints included quality from a didactic and/or pedagogical point of view where education quality was seen as the optimisation of the teaching and learning process; quality from a macro-economic point of view, in that, education quality was seen as the optimisation of the education and training costs; quality from a social or sociological point of view, which saw quality education as the optimisation of the response to social demand for education; quality seen from a customer point of view, as the optimisation of the demand on education and finally quality from a management point of view where education quality was seen as the optimisation of the organisation and processes of education. The order in which the different viewpoints are listed reflects to some extent the shifts in emphasis. However, according to Van den Berghe (1997), this shift is not a question of replacing ‘old’ paradigms with ‘new ones’, but rather one of adding ‘new’ dimensions which reflects the growing complexity of the education system and the objectives it has to meet.
In the preceding subsection and in this subsection, the concept of quality in education and in VTE was defined. Various authors have argued that different people are likely to prioritise the importance of different dimensions of quality in education according to their motivation and interests. The next subsection identifies these people or stakeholders involved in the education sector, as well as their importance, motivation and interest.

2.2.3 Who should determine quality?

The need to provide a transparent quality process testifying the quality and reputation of educational institutions is important to a country’s continued success in a highly competitive market. Mac Farlane and Lomas (1999) recommended that an integral part of the management process in educational institutions is the need to identify and recognise the claims of the stakeholders. Without a clear indication of who the players are, they say, the question of quality and its meaning becomes purely a reaction to the government guidelines imposed on the institution.

It has been stressed in the earlier section that quality is a term that means different things to different people. As a result, it is being implemented throughout the VTE sector in a variety of ways at national, institution and classroom level. VTE provision can be thought of as occurring on several layers, and since different stakeholders populate each of these layers, it can be expected that the indicators of quality proposed could differ due to the differences in values emphasised by the different stakeholders. Blom and Meyers (2003) proposed that in considering the quality approach a system intent to adopt, it is necessary for the stakeholders in the quality process to be identified. This is because their values will largely determine
how quality is defined and measured. These values, they say, will in turn influence
the approach or approaches that these stakeholders take on quality. The inclusion of
many stakeholders in defining quality can also create more useful benchmarks.

A number of interpretations and definitions have been suggested for the term
stakeholders with respect to education. A definition of stakeholder as given by
Bryson (1995, p. 25) is ‘any person, group or organization that can place a claim on
an organization’s attention, resources, or output or is affected by that output’ while
Harvey (2004, p. 1) in a simplified version of the definition stated it as ‘a person (or
group) that has an interest in the activities of an institution or organisation’.
Campbell and Rozsnyai (2002, p. 134) in defining this term identified the
stakeholder as ‘students, society and governments participating in or benefiting from
the provision of education’. In general, the following stakeholder groups in tertiary
education have been identified, but they could read as being synonymous with those
in VTE, namely the funders (government), VTE providers or training organisations
and users or purchasers (students, employers and the community). These groups of
stakeholders will be discussed in turn.

The funders

A government as the funder of education would expect all educational institutions in
receipt of government funds to be publicly accountable for student outcomes.
Government usually regard government funded educational institutions as public
service providers accountable for the honesty, value for money and policy outcomes
achieved for the funds allocated. Increasing emphasis on securing specified outputs
and outcomes from publicly funded activities were made in response to community
expectations about improving service quality and policy effectiveness. Provision of the information is needed to ensure transparency in the public domain about the educational system and its achievement.

The means of dealing with the conflicting conceptions of quality, as recommended by Baker (1997) is for the government to determine what quality is, and to ensure that this definition is achieved in education. In such a model, according to him, democratic processes aggregate the views of all the participants and interested groups to form a consensus and agreement on what constitutes quality.

**Education and training organisations**

Education and training organisations have an immediate interest in the quality of their own activities. This concern, according to Baker (1997) is driven by their desire for excellence, whether in teaching, research or administration, as well as by the need to meet the needs and requirements of external groups such as funders and purchasers. A fairly traditional view of how quality in education should be determined, he says, is for providers to set their own standards and definitions, and to engage in self and peer review of those standards and definitions. Baker further contends that providers suffer far fewer information problems than the government as they have a much greater understanding of the inputs and processes of education than the government does.

**The users**

The contestable nature of what is defined as quality seems to suggest that the market be used as a determinant of quality. Those providers which provide education which
best meet the definitions of quality or preferences of the purchasers or buyers would
flourish. Blom and Meyers (2003) stated that the market controls much continuing
VTE provision. VTE exists, they say, to serve not only the needs of individual
students and the wider communities of which they are a part, including employers
but also all other members of society. Students, employers and the community,
according to them, are far from homogenous in their interests and needs. Every
individual student has his/her own needs and views of what constitutes quality in
education. Similarly, employers, even those in the same industry or company can
have widely divergent views on what constitutes a quality graduate. Many groups
within the community have differing views of what is important in terms of
education.

Students are generally concerned with getting the best job that they can on
completion of their studies. Students have been recast as clients or customers, and
this shift has considerable implications for the ways in which the concept of quality
is incorporated into service delivery and measured for the purpose of accountability.
However, Hill, Lomas and MacGregor (2003) noted that from their preliminary
search of the literature, there appeared to be very little empirical research into
students’ perceptions of quality in education. They noted that some academics are
uncomfortable with the idea of students as customers and a few asserted that
programmes and services cannot be improved by seeking evaluations from students.
In agreement with this finding, Barrett (1996) raises a number of issues and
arguments against the push for quality mainly on grounds that students should not be
considered as customers, since they are unlikely to be sensible judges of what they
need in terms of education in order to be satisfied. He also stressed that there are
critical differences between corporate and collegiate settings regarding the principle of customer satisfaction and concept of student as customer. He argued that it is also possible for some students to be highly satisfied with the education provided to them, yet remain relatively uneducated.

One of the essences of VTE is its direct relevance to the needs of industry (Nasta, 1994), thus networking, partnerships and linkages with industry are extremely essential. According to Mohd Nasir (2002), VTE systems when working together with industry could benefit more from the preparation of an effective curriculum, the matching of skills with job opportunities existing in industries via labour market intelligence, access to the latest technology, the renewal and adaptation of teaching and training to suit productive work, staff development and training and some financial support. As vocational education is directly related to employment, Blom (2001) contends that the value of credentials is largely dictated by employers and industry, as well as by the education and training system. The application of the term 'human resources' to employees, their labour, their knowledge, and their abilities to do work, he says, is also indicative of a perspective which prevails in this economy. Employers benefit by high quality training of their employees and they create the demand for employees with those skills (Burnett & Clarke, 1999).

The degree to which particular stakeholders influence VTE quality policy varies considerably between different countries, due largely to variation in the background contexts of the various countries. Some VTE systems have a diverse range of stakeholders who have quite different expectations. According to Meyers and Blom (2002), the degree of influence exercised by business and industry on VTE quality systems has greatly increased in some developed countries such as Scotland,
England, New Zealand, and Australia. According to them, this development is due to the formation of national training authorities that regard business and industry as their key stakeholders, while other groups of stakeholders have less influence in the formulation of VTE quality policies. Citing the European Union countries, South Africa and the United States, where national and state governments are particularly influential stakeholders, they say, a high degree of emphasis is placed on the requirement to meet broad community needs in the formation of VTE quality policies. In Denmark, students, education providers and social partners are given priority as stakeholders (Cort, 2005), while teachers are given prominence as stakeholders in the Netherlands (Blom & Meyers, 2003).

In summary, stakeholder groups with interests in the issue of quality in education have been identified in this subsection, ranging from the government or funders, education and training providers as well as users which include students, parents, employers and communities. These stakeholders might have disparate views and meanings of educational quality as well as different preferences for how quality is assessed. Having identified the various stakeholders, the next subsection looks at the definition of quality assurance.

2.2.4 Defining quality assurance

Since quality is described as a concept rather than a technique (Gilmour & Hunt, 1995), its implementation is very much dependent on the type of organisation or process at hand. Identifying processes and predicting the consequences of changes are important steps towards improving quality. In designing process maps, according to Deming (1994) and Gilmour and Hunt (1995), all aspects of the service including
suppliers, clients, design, production, and delivery need to be considered. Gilmour
and Hunt also noted that the effective management of an integrated process is the
key to ensuring quality outcomes, and the quality of the finished product is the direct
result of the quality throughout the process used to create it. If problems arise at any
stage in the process, they added, the quality of the entire process will be affected.

Quality and quality assurance have become key issues internationally in the 1990s
(Craft, 1994) and managers of education systems and institutions are concerned
about quality and how to put in place appropriate quality assurance mechanisms.
There are many different approaches to quality assurance (Hager, 1997), most of
which are applied at the organisational level rather than that of individual modules
or projects.

While an exact definition of quality is somewhat problematic in a VTE environment,
there are less problems with the notion of quality assurance. The question of how to
ensure the quality specification can easily be answered in VTE (Van den Berghe,
1997). This process logic has more to do with identifying the factors and operational
characteristics which are most effective.

Many authors have proposed a definition of quality assurance. Gilbert (1992, p. 32),
for example, defines quality assurance as ‘the assembly of all functions and
activities that bear upon the quality of a product or service so that all are treated
equally, planned, controlled and implemented in a systematic manner’. According to
the British Standard Institutions (BS4778) (1987), quality assurance is all those
planned and systematic actions necessary to provide adequate confidence that a
product or service will satisfy given requirements for quality. Harman (1998) and
Skilbeck and Cornell (2000) defined quality assurance in the context of higher education as systematic management and assessment procedures adopted by a higher education institution or system to monitor performance and to ensure achievement of quality outputs or improved quality. Vroeijenstijn (1995, p. xviii) defined quality assurance as the ‘systematic, structured and continuous attention to quality in terms of quality maintenance and quality improvement.’ Harman and Meek (2000, p. 5) refer quality assurance to the ‘processes of on-going review, assessment and monitoring that should apply to all recognised providers in order to ensure that courses and awards are of a high standard and that institutional monitoring of performance is effective’.

These definitions are somewhat similar to the definition proposed by the Australian Vice-Chancellors’ Committee (1999) who suggested that quality assurance is the policies, attitudes, actions and procedures necessary to ensure that quality is being maintained and enhanced. Harvey and Green (1993, p. 19) view quality assurance in terms of institutional processes and define it as ‘ensuring that there are mechanisms, procedures and processes in place to ensure that the desired quality, however defined and measured, is delivered’. Other definitions (Cuttance, 1994; Harman, 1998; Warren Piper, 1993) also associate quality assurance with processes or procedures more than outcomes. Some of the definitions capture the dual nature of quality assurance, that is, fitness for purpose and continuous enhancement. However, according to Hodson and Harold (2003), pressures at the end of the second millennium tended to focus more attention to those elements of the definition that emphasised fitness for purpose rather than continuous enhancement.
Some authors, for example, Brennan (1997) prefer the use of the term quality assessment instead of quality assurance. However, Harman (2000), and Harman and Meek (2000), claim that even though a great deal of the effort in quality assurance relates to quality assessment, their view is that quality assurance is generally conceived as a broader term which embraces not only assessment but also other activities. These activities, according to them, include communication of assessment results to stakeholders and follow up efforts aimed to achieve improvement.

This subsection discussed the way various authors and organisations define the term quality assurance in education. Overall, what is meant by quality assurance is dependent on a clear definition and purpose of what is being examined. From the definitions mentioned in this subsection, it can be implied that a quality assurance system documents procedures with the aim of ensuring that the overall process meets specified objectives and also demonstrates that quality is a managed outcome.

The next subsection is divided into two topics. The first topic discusses factors and justifications as to the increased importance of quality assurance while the second topic will examine the various purposes for the implementation of a quality assurance system. These topics will be presented consecutively.

**The Importance of Quality Assurance**

Several authors (Harman, 2000; Gibb, 2003; Neave, 1997; Van Damme, 2000) referred to a number of interrelated factors in explaining the increased importance and strengths of the quality assurance movement of the past decade. First, there is the concern of a potential decline in academic standards due to massification in
education (Van Damme, 2000). Second, key stakeholders especially employers, according to Van Damme (2000) and Neave (1997) have lost some confidence in the traditional academic quality management capacities of educational institutions and their ability, both quantitatively and qualitatively, to match the output of their operations with the needs of modern workplaces and labour markets in an increasingly competitive economy. Third, Harman (2000) and Van Damme (2000) argued that budget restrictions and fiscal crises has led to stagnating or declining government funding, along with increased pressure for efficiency in public expenditure and the possibility of using quality assurance and academic standards as levers to achieve increased public and private funding. Fourth, increased demands placed on educational institutions for greater accountability in the use of public funds, an outcome from the emergence of the 'evaluative state' (Gibb, 2003; Neave, 1997). Fifth, an increase in competitiveness and diversity of the education environment itself, nationally and internationally. This is supplemented by the rapid erosion of traditional student recruitment networks, the growing mobility of students, professionals and academics, the pressure and expansion of private institutions, the increased use of distance education and open learning and expansion of trans-national education including the opening of branch campuses by foreign educational institutions (Harman, 2000; Neave, 1997). This perceived quality, according to Van Damme (2000) will become the decisive criterion for students and employers in making decisions in an increasingly complex market.

With regard to the fifth factor mentioned above, a number of countries in the Asia Pacific region including Brunei have strengthened or are in the process of strengthening their quality assurance mechanisms and are showing increasing
concern about allowing private and foreign education and training providers to operate within their borders. Brunei has revised its ‘Education Act’ in 2004, and is in the process of formulating its ‘Technical and Vocational Education Act’ which includes guidelines for the registration of private and foreign technical and vocational education providers. Malaysia, according to Harman and Meek (2000) recently established an accreditation board that will cover the activities of foreign providers as well as local institutions while in Hong Kong, new regulations governing the activities of foreign universities operating in the territory have been set up. These developments, according to these authors, were prompted in order to encourage high quality private and foreign educational providers to establish campuses in these countries.

This subsection detailed the five interrelated factors that explain the surge of interest in the quality assurance movement. It started with discussing the concern of decreasing academic standards, loss of confidence in traditional educational quality management capacities and capability to meet employers’ demands, lack of funding, increasing demand for accountability and increased competitiveness and diversity of the educational environment. The steps taken by a number of Asia Pacific countries including Brunei were also briefly discussed. The purposes as to the implementation of a quality assurance system will be listed and discussed in the next topic.

**The purpose of quality assurance mechanisms**

In reviewing the literature, several important dimensions of international variations in quality assurance mechanisms concerning the purposes or functions of quality assurance systems were identified (Kells, 1995; Vroeijenstijn, 1995). These
purposes are improvement of education, accountability, public information and market transparency, allocation of resources and planning, and control. These purposes will be discussed successively.

Improvement of education

The first purpose or function of a quality assurance mechanism is improvement of education. Several authors (Harvey, 1998; Van Bruggen, Scheele & Westerheijden, 1999; Van Damme, 2000) mentioned improvement of education as the main and most frequently stated purpose of the quality assurance process. Improvement, according to these authors, is linked to the definition of quality as transformation. This approach to the quality assurance process leads to the processes of institutional innovation. The goal of quality assurance, they say, is to help institutions acquire the necessary input, improve processes and raise the standards of outcomes. However, it may be necessary to ask what is to be improved, in what ways, and for whose benefit. According to Van Damme (2000), the quality assurance system serves primarily to give feedback to the teaching staff of institutions in order to have the curricula, content, infrastructure and delivery modes of academic education improved. Harvey (1998) stated that in many cases improvement also means renewal and innovation. It is also about improving the learning experience so that students feel their lives are transformed by pursuing education.

Accountability

The second purpose or function of a quality assurance mechanism is accountability. According to Van Damme (2000), the concept of public accountability has been the dominant and most important rationale for introducing quality evaluation.
Accountability, as defined by Schofield (1999a), is the degree to which stakeholders meet and are perceived by others to meet their obligations in terms of planning, actions and their role in achieving identified objectives. Accountability, according to Brown, R. (2000), literally means rendering an account to a third party of what one is doing, why one is doing it, and how one knows it is effective.

In countries such as the United States and Brazil (Grady Bogue, 1998; Harvey & Askling, 2003) where educational institutions autonomy is traditional or based on the market, there has been a growing demand for explicit accountability. On the other hand, Askling, Lycke and Stave (2004) and Harvey and Askling (2003) contend that in countries such as China, Eastern Europe, South America and Scandinavia, where educational institutions have been under government control, accountability is the price of increased autonomy. Governments, they say, are primarily concerned to see that educational institutions satisfy the criteria of adequacy. As the major and sometimes the only funder of education, governments are looking for a more efficient and effective use of resources, and demand some kind of accountable return for the investments made in education. Quality assurance in the form of external quality evaluation encourages compliance to emerging or existing government policy, guidelines and regulations. Due partly to increased costs of massification, there is growing governmental pressure for the educational sector to be more responsive to value-for-money concerns, to be more relevant to social and economic needs, and to engage in widening access. Sharing this view, Van Damme (2000) points out that educational institutions are not only forced to be more responsible and cost efficient in the way they use and consume public funds and resources, they are at the same time expected to achieve the ultimate goals of
students in jobs and students satisfied with their studies. In addition to this, he says, educational institutions are also asked to report publicly on the quality of their outcomes and their social benefits to stakeholders.

In describing the accountability function of quality assurance, Harvey (1998) detailed three broad concerns. First, accountability to external funders, mainly governments, that public and private money is spent appropriately and the need to account for and prioritise expenditure. Second, accountability to the education sector so that the principles and practices within education are not being eroded or flouted. This form of accountability, he says, is mainly used to control the development of private providers, while at the same time it is used to ensure that public providers do not become complacent. Third, is the accountability to customers, mainly students, to ensure an appropriate provision of educational experiences. According to Harvey, this arises from the concern that graduates should have the skills and knowledge to make maximum contribution to national prosperity and that the academic standards of their qualifications should be accepted internationally.

Public information and market transparency

Public information and market transparency is the third purpose or function of a quality assurance mechanism. This function stresses the right of the public and of potential customers such as students, their families or employers for detailed information on educational institutions, for example, with regards to standards and quality of the academic, success rates and facilities. Through effective public information, Van Damme (2000) contends that quality assurance will help and lead to the improvement of market transparency. This transparency should be dialectical,
meaning that the quality assurance should make institutions transparent, and at the same time, the quality assurance in itself should be transparent, allowing the outcomes to be shared by the stakeholders. He also emphasised the need for a quality assurance mechanism leading to the generation of some kind of public reporting about the quality of the institutions and programmes.

At its simplest level, Harvey (1998) suggests that educational institutions have been encouraged, or even forced to comply in the production of information, such as statistical data, prospectuses and course documents. Such compliance means that taken-for-granted practices and procedures have had to be confronted and clearly documented. Harvey (1998, p. 241) also states that this development ‘represents the minimum required shift from an entirely producer-oriented approach to education to one that acknowledges the rights of other stakeholders to minimum information and a degree of service’. The main intention, he explains, is for users, such as prospective students and graduate recruiters, to use this information to make informed choices. However, on a different note, Harvey and Newton (2004), suggest that there is little evidence to indicate that in making decisions and selections, students or employers make much use of information that results from quality monitoring evaluations.

Allocation of resources and planning

The fourth purpose or function for a quality assurance mechanism is resource allocation and planning. According to Van Damme (2000), some countries are using quality indicators to differentiate between institutions in the allocation of funds and
resources. Decision making processes concerning allocation of programmes are also based on it.

Control

The fifth and last purpose is control. Harvey and Newton (2004) explain the two control functions of the quality assurance process. First, the government’s intention to control the education system by restricting unrestrained growth. This is done, according to them, either by financial control or by using the outcomes of quality monitoring to encourage or restrict expansion. Second, the desire of those in authority to control the status, standing and legitimacy of the education system. This addresses the comparability of standards, the standard or level of student academic or professional achievement, nationally and internationally.

It can be summarised that the purposes for implementing a quality assurance system as identified by a number of authors are: improvement of education, accountability, public information and market transparency, resource allocation and planning, and control. Each of these purposes demands a specific focus, which influences the architecture and methodology of the quality assurance mechanism and process. The focus of the first purpose concerns the internal institutional level itself, whereas the second, third, fourth and fifth purposes were centred on the external responsibilities of the educational institutions in relation to the stakeholders. In achieving these purposes, the next subsection identifies and discusses the variety of approaches and methodologies used by various countries and educational organisations.
2.2.5 Approaches and methods to quality assurance

Over the past decade, extensive experimentation has taken place internationally with quality assurance and how it is managed. The literature reporting these developments points to a variety of approaches and methods, and also to a significant degree, national systems of education borrowing from each other. While such borrowing is to be encouraged, Harman (1996) warn that it is important that any procedure and approach fit well within the culture of the particular system or institution of a particular country. Subsection 2.2.5 examines the variety of approaches suggested by a number of authors. It then discusses in the following order, the five main methods used in the quality assurance system, highlighting their strengths and their weaknesses as reported by the various authors. These five methods include accreditation, self-assessment/self-evaluation, peer review, inspection/monitoring and report and follow up.

Quality assurance processes, according to Harvey (1999), often start by determining how quality is to be assessed or reviewed rather than by asking what it is that is to be assessed. Harman (1998) in comparing the present and the past approaches to quality assurance noted that the new concept of quality assurance is a more systematic and far reaching approach ensuring that institutions and systems have in place mechanisms for review and assessment, and for renewal and improvement. The new mechanisms, according to him, also put much more emphasis on external scrutiny, seeking the views of employers and graduates and, in various ways, making the results of assessment more widely available to the stakeholders. The quality assurance professional's tool also expanded beyond the statistical methods of the quality control era, as the main aim of quality assurance was seen as serving the
people who were not directly responsible for the operations, but those who need to know and to be informed (Juran, 1995).

The typology of four different types of quality assurance which have been developed by Rajavaara (1997) include: political-administrative, citizen-based, business-oriented and professional. Under Rajavaara’s political-administrative type, the main approaches used are legislation, service standards and quality indicators. In the citizen-based type, the main approaches are action groups concerned with quality and the introduction of alternative social models. In the business-oriented type, the main approaches used are Total Quality Management, ISO 9000, quality awards and benchmarking, while the professional type depends on professional training and professional ethics, professional audits, peer review and self-assessment/evaluation.

The key issue in designing and implementing a quality assurance system is the ability of the quality concept to facilitate the perspectives of a range of stakeholders who have differing conceptions of quality in education. As stated by Tam (2001), there is concern regarding the relationship between the conception of education, the definitions of quality being used, and the performance indicators chosen to measure quality. It is important in overcoming these concerns and in producing a performance evaluation framework, he says, the equal expression of stakeholders’ voices, even though they may conflict or compete with each other, must be allowed and encouraged. Tam also stressed that designing and implementing a quality assurance system that embraces all levels of the system from national to school level, is a huge undertaking.
While the methodologies in various quality assurance reviews and assessments vary considerably, most depend on one or a combination of a limited number of key methodologies. There has been a convergence towards systems that focus on accreditation, self-study or self-evaluation, peer review by panels of experts, usually involving at least some 'external' members and visits leading to a published report (Adivisio, 2002; Harman, 1998; Harman & Meek, 2000; Maassen, 1997; van Vught & Westerheijden, 1993). In deciding an appropriate method to be used in a quality assurance system, Hodson and Harold (2003) cautioned that such a general model may obscure national variations which can be influenced by historic relationships between states and institutions, who undertake quality assessment and the methods and outcomes of the process. The main methodologies used in a quality assurance system as mentioned earlier will be discussed individually.

**Accreditation**

A strategy to improve the standard of quality and relevance of VTE programmes is through the development of an accreditation system. Accreditation, according to (Adivisio, 2002) is a process of quality assurance, giving credit where it is due, for some clearly visible and demonstrable strategies of academic activities and objectives of the institution. These activities and objectives are known to be pursued and efficiently achieved by the resources available to the institution, with a potential for effective growth. Through this process, the approval of VTEIs and/or training providers as well as curriculum which may include the specification of contents, teaching methodology and assessment standards are set by the authority or authorities appointed by the government. The objective of accreditation is to ensure quality and high standards for VTE programmes and services (Adivisio, 2002).
In describing accreditation in VTE in ASEAN member countries, Adivisio (2002) states that further improvement in the present institutional arrangement and resource capability is needed for the accreditation system to be an effective tool for quality assurance. It is assumed in some cases, that VTE qualifications in the region are only recognised by their individual governments and only accepted by employers in their own country (Mohd Nasir, 2002). There is a need for the accreditation body in each country to ensure that the qualifications they endorse and issue be recognised by employers, workers and individuals especially across the ASEAN region, and to the world, in general. In Australia, according to Loveder (2002), accreditation arrangements have largely been replaced by a system of national training packages which are designed to meet industry requirements. Training providers are also required to register. A critique on the accreditation approach argues that national accreditation arrangements work towards national uniformity rather than diversity. Accreditation is also criticised for failing to prevent problems in both academic and administrative integrity (Westerheijden, 2001).

**Self-assessment/Self-evaluation**

Self-assessment has been used as a tool to ensure, develop, assess and evaluate quality at system and provider levels. It may cover one, several or all of the factors that have an impact on the quality of the VTE provision, including the organisation of the VTE system, institutions, mechanisms, resources, pedagogical expertise, as well as relations to external environments. As emphasised by Stahl (1998), it is the people who are directly experiencing training in practice, whether as teachers or students, who are best able to assess its effectiveness in terms of expectations, needs and practical use. He added, it is also their criticism of themselves and others
involved in education and training, and proposals for improvement that can be
directly built into the training programmes. Self-assessment helps VTE providers to
analyse their responses to these challenges, and to provide adequate feedback on
areas needing change.

The Technical Working Group (TWG) (2004), a group established by the European
Ministers of Vocational Education and Training on the promotion to enhance
European Cooperation on VTE claims that at system level, self-assessment helps to
improve good governance. This is necessary to provide adequate statutory
provisions, to allocate the resources, to check results and to provide feedback. Good
governance will also enable VTE providers to respond to and carry out the necessary
changes. The Technical Working Group (TWG, 2004) suggests that there are two
main factors for using self-assessment. First, national bodies use self-assessment to
pilot and support quality in VTE provision, primarily in relation to VTE goals and
the country’s specific regulatory frameworks. Second, VTE providers at institution
level voluntarily use self-assessment as a means to rationalise the training they offer
and improve its legibility. This is done, they contend, as a means to cope with the
challenges of recognition, image and confidence building.

In conducting self-assessment/evaluation, Milenkovic (2003) detailed how self-
assessment/evaluation can be undertaken. According to him, once the aspects of the
work of the educational institution to be assessed are identified, the task proceeds
with the preparation of instructions to be used in self-assessment/evaluation. These
aspects may include the mission (mission, goals, expected results), the input
(management, action plan, staff, students, financing, equipment), process (the
curricula, research projects, professional services to the community), and the output
(the training that graduates have received, scientific production, professional services). Other aspects include quality assurance and improvement plans, details on methods used to monitor and benchmark achievements and the results of monitoring and benchmarking. He goes on to explain that a report will be produced which usually includes an assessment on how much of the mission has been fulfilled, how far the goals have been achieved, and how much the stakeholders in the process are satisfied with the activity of the institution.

In recommending the use of self-assessment, Harman (1998) and Van Damme (2000) highlighted a number of its positive features. According to them, self-assessment is effective and cost efficient since it is done internally, with only a few additional resources necessary. Self-assessment, they say, is also used because of the high degree of ownership and acceptance by the academic community itself since key staff are heavily involved and such involvement increases the chances of substantial improvement. The overall process of review or assessment is made less threatening when emphasis is placed on self-assessment. Trow (1995, p. 22, cited in Harvey, 2002a) in supporting the use of self-assessment argues that ‘internal reviews and assessments are more accurate and fruitful than those done by outsiders’.

However, Barnett (1990) as early as 1990 argued that there were indications the positive achievements that higher education had achieved through self criticism were ‘coming under the severest threat’ (p. 104). Gosling and D’ Andrea (2001) stated that since the time of Barnett’s observations the quality processes have far exceeded Barnett’s fears in terms of their intrusiveness, external control, requirements on reporting, and external accountability. Trowler (1996) researching the impact of quality systems on the academic community, has provided an account
of the strategies adopted by academics to subvert managerial systems imposed on them with which they do not agree. Trowler’s study shows that the respondents agreed that managerialism is ‘at best an irrelevance and distraction from the daily business of teaching and learning’ (p. 22), and adversely a threat to the already vulnerable educational institutions. Academics learn to play the system and pass the test rather than aim at improving teaching (Harvey, 2005).

Harvey (2002a) points out that a distinction should be drawn between self-evaluation for internal use and self-evaluation for external use, which according to him, may lead to two different sets of reports, one prepared for internal consumption and another for external consumption. This lack of openness, he says, is due to fear in revealing weaknesses or problems in self evaluating, especially when resources are used to reward strengths rather than eliminate and reduce weaknesses. This view was supported by Peters (1994, p. 18-19) who stated that ‘effective assessment requires a diligent search for bad news, which is more useful than good, but accountability encourages the opposite. Campus officials are understandably reluctant to bear bad tidings to those who fund them’. Educational institutions tend to construct indicators that reflect the ease of capturing data rather than identifying those criteria that will carry valid evidence of performance.

**Peer review**

Self-assessment is an important method in quality assurance, which builds on ‘innate’ knowledge. However, according to Baker (1997), self-assessment is an introspective procedure and thus biased. In order to strengthen the credibility, legitimacy and recognition of results of self-assessment, Baker suggested that it be
combined with an external monitoring system which ensures periodic review by an independent and appropriate third party body at national, regional or sectoral levels. External reviews, he says, are important especially to ensure that the self study is taken seriously and to bring in outside perspectives. A combination of self study with external peer review provides a strong incentive for staff to take the activity more seriously and it is the traditional professional means of assessing and assuring quality. Baker goes on to say that self and peer reviews can be very supportive of quality improvement, are flexible and able to respond to a particular context, and have broad acceptance amongst education providers.

In detailing the works of external committees during the peer review, Van Bruggen et al. (1999) state that in most educational institutions, quality assurance starts with self-assessment. Self-assessment reports are the basis of evaluation by external committees, mostly consisting of peers. These external committees, they say, reflect on the self-assessment reports and investigate the situation through site visits. The external committees write public reports that include recommendations for improvements, and examples of good practice are highlighted. Public reports, according to them, are of vital interest for quality assurance in education and they influence the behaviour of the educational institutions and other parties in the evaluation procedure in a desirable way. Undoubtedly, these public reports can have a stimulating effect on the internal operations of the institution, especially for use in the long term. Goedegebuure, Massen and Westerheijden (1990) in supporting the use of peer review, claim that, although peer review has low reliability, it has high content validity, is flexible and can be geared to individual situations.
In highlighting some critiques of this approach, the works of Harvey are given prominent in this review. Harvey (2000) argues that although self-assessment is often taken seriously only if peer review follows, peer reviews themselves are not particularly an effective or efficient means of unravelling what is really going on. He added that during the review process, peer review teams make judgements based on what they are told and tend to look for discrepancies in the story. They attempt to relate what they hear to the self-assessment document. Harvey also stated that the reviewers rarely have detailed documentation nor fully observe what goes on in the educational institution under review. According to him, even if during the short duration of their visit, reviewers have access to appropriate documentation which allows them some form of cross-checking and the opportunity to observe facilities and practices first-hand, they tend to see and assimilate only small aspects of the whole institutional operation.

Harvey (2000) also argues that peer groups see relatively little as they spend most time closeted in a room having discussions with groups of ‘selected’ discussants. He also noted that peer reviewers are rarely trained and some reviewers even conduct the review without any proper training. If they are trained, he says, it is only to help them identify what they should be looking for and not how to interpret what they see. The preconceptions and prejudices of peers are seldom challenged by the staff of the institution under review prior to their visits. Harvey also noted that some reviewers considered themselves learning while conducting the review process. In practice, there tends to be a considerable gap in the perceptions of peers and the authors of self-assessment documents. In his later work, Harvey (2002b) citing an example from the United Kingdom, noted that the staff indicated that they had been
told by their superiors and colleagues not to raise issues with external assessors that might indicate problems.

Harvey (1999), in another paper, citing the findings from the study conducted by Silva, Reich and Gallegos (1997) on the newly developing private university sector in Chile, highlighted that in 90 per cent of the cases, peer reports were simply confirming what the institutions already knew. Furthermore, the prior experience of peer reviewers tended to influence the outcome of reports. Stensaker (1999, p. 365) in his review of Swedish Audits, noted that ‘on the whole, the visits appeared to be more geared to the needs of the auditing teams than those of the institution’. Grady Bogue (1998) also mentioned that even though programme reviews featuring self-assessment and external peer review at the discipline, department, or programme level are highly respected instruments of quality assurance in education, staff often viewed them as futile exercises, only serving as busywork to occupy some administrators, having little relationship to resource allocation and other decisions.

**Inspection/ monitoring**

Inspection is an external expert model of quality assessment which ranges from strict control and accounting measures to a more open system where control is also committed to developmental purposes, sometimes combined with voluntary peer review. Monitoring systems, mechanisms and procedures are part of the regulation function in governance and they can be as diverse as the national systems, sub-systems and institutions. According to the Technical Working Group (TWG, 2004), the current trend towards decentralised governance, supporting and relying on local know-how and creativity, is in line with an increasing strategic complementarity
between internal and external procedures. This group also noted that many countries are using inspection as a common external monitoring measure in publicly supported VTE systems to complement self-assessment. They say monitoring helps to ensure that internal assessments are challenged regularly and it provides a clear and comparable analysis of the quality of VTE through approaches such as grading systems and published reports. In most countries, in addition to its controlling function, support and counselling of VTE providers, part of the work of inspection bodies is towards the improvement of the quality of VTE (TWG, 2004).

An important feature of the current framework of inspection in educational institutions as highlighted by Brown, R. (2000) is that the intensity of the reviewers’ scrutiny during the monitoring process will not be the same for each institution. This will vary depending on the monitoring agency’s view of the maturity and reliability of a particular institution’s internal quality processes. Franke (2002) emphasised that if the monitoring agency finds that the quality of a certain programme does not meet sufficient standards, a warning will be issued. The institution, he says, is given time to take action and remedy any problem. If shortcomings remain in the subsequent inspection, the institution will lose its right to award degrees or diplomas in the subject or programme in question. This approach of quality assurance, according to Van Damme (2000) is the typical methodology used in countries where the institutions themselves control the quality assurance process. He further explains that the monitoring or audit is a meta-review of the functioning of the quality control mechanisms itself and is often the responsibility of the government.

Some critiques of this approach stressed that inspection often comes under frequent and critical assault due to a range of imperfections. Baker (1997) emphasised that
even though its external nature can increase external confidence in its validity, inspection can suffer from the difficulties encountered in peer and self-review/assessment, in particular the level of individual acceptance which makes these reviews useful as a tool for quality improvement. An approach to overcome this shortcoming was suggested by Laughlin (1991, cited in Hodson & Harold, 2003), where she recommended institutions to actively engage and encourage staff to participate on every audit occasion. The value of these approaches, according to her, can be seen during the preparation stage where staff were exposed to a series of meetings, seminars, awareness-raising sessions, news bulletins and web site news. In this way, she says, a wider range of people in the educational institution can be made aware of the key elements of institutional policy and procedures, areas of performance shortfalls can be identified and can result in the whole staff taking positive action to rectify the shortfalls. The real benefit arising from this measure, according to her, is the experience gained during the preparation for audit rather than the audit itself.

In criticising the use of monitoring, Grady Bogue (1998) describes it as an episodic exercise in professional back scratching or an exercise built on minimal standards whose processes and activities are often hidden from public view. Harvey (1999) argues that the efficacy of the methodology of compulsory monitoring which uses self-evaluation, peer review and statistical indicators is rather debatable, if institutional staff sees the self-evaluation as part of a judgmental process linked to status rankings or to funding. Staff, according to him, will be reluctant to be open about weaknesses and there is also the tendency to overstate strengths. This lack of frankness makes dialogue difficult and the self-evaluative process will turn into a
defensive account rather than an opportunity to explore future development and improvement.

Monitoring also affects educational institutions in many ways. Rustin (2000) highlights that institutions can become scenes of anxiety and persecution and at the same time staff self-confidence and morale are undermined. This concern was also highlighted by Ramsden (1992) who stated that the regulatory system can create an atmosphere of distrust, resulting in conservation, and drain staff enthusiasm for innovation. In a study conducted for the British Sociological Association on the impact of the 1992 Research Assessment Exercise (RAE) in the United Kingdom, Warde (1996, cited in Harvey & Newton, 2004) described that the impact on staff appeared to be a sense of declining morale, a loss of job satisfaction and a decline of collegiality. Highly significant, in Warde’s study, was that no one reported any positive effects of the RAE. Most respondents thought it to be detrimental to quality, both in teaching and research. Warde, however noted that this view was in contrast to the self-assurance of the people responsible for the exercise who proclaimed its unquestionable success, even without making justification for their beliefs.

Another concern of quality monitoring is the time taken in preparing for monitoring events, in particular, the requirement to prepare specific event-related documentation which is considered a burden to academics. Harvey (2002a) recommended that monitoring agencies should evaluate on the basis of what institutions already produce rather than asking them for detailed documentation for monitoring purposes, such as is required in the current British system, which he believes is entirely unacceptable. He noted that such activities could divert scarce resources from the key tasks, namely, the improvement of students learning and experience.
Harvey suggested that if, for example during an evaluation, it was revealed that the institution does not provide adequate materials to students about assessment criteria, then this should be noted for future action during subsequent visits. Other authors such as Harvey and Askling (2003) have also expressed concern that external quality monitoring might inhibit innovation because of the application of conservative or rigid evaluation criteria which leads to uniformity rather than diversity and flexibility. They highlighted the need for a significant connection between internal and external processes, without which the effect of monitoring will only be temporary rather than the permanent nature of review-inspired improvements.

Although Kristensen (1997) stated that external monitoring can never stand alone and will never be able to replace valuable internal self-assessment, Smith and Ngoma-Maema (2003) warn that as the pressure to improve quality of education intensifies, there is a danger that external evaluation processes may overshadow educational institutions self-assessment initiatives. The consequence of this, according to them, is that institutions may lose the space to determine what matters to them and end up responding and adhering solely to the recommendations made by external evaluators. The challenge for these institutions is to ensure compatibility between these potentially contradictory roles. In a similar view, Harman (2000) states that ‘quality assurance also requires achieving a balance between the burdens placed on institutions against legitimate external information and reporting requirements’ (p. 215). He points out that ‘what is regarded as a light-touch approach by governments can easily be viewed as unreasonable intrusion into internal institutional affairs’ by staff (p. 215).
There is also perhaps the fact that quality assurance mechanisms (which put so much pressure and add workload to staff) have been introduced at the same time as cuts in funding (which also created more work and stress). In combination, these two phenomena have created very stressful work environment and it comes as little surprise that collegiality and loyalty are diminished.

**Reporting and follow-up**

Reporting and follow-up activities are vital parts of a quality assurance programme. Franke (2002) in discussing this approach stated that the challenge faced by monitoring agencies or reviewers is the way to devise fair and effective methods of follow-up, which will be considered by the different stakeholders and which will lead to improvements, but at the same time are not likely to be damaging to the institutions under review. He recommends that a useful report and subsequent follow up should be explicitly addressed in guidelines, or in discussions prior to the implementation of any review and that the institution or unit being assessed should also be given the opportunity to comment on the draft report. Franke (2002) also recommended that following an evaluation, a simplified follow-up along with seminars and other activities in broader discussions with representatives from industry, politicians and others should be carried out to ensure positive development arising from the monitoring activity. In making reports public, Van Bruggen et al. (1999) believed that the behaviour of educational institutions and other parties in the evaluation procedure could be influenced towards desirable outcomes in order for the exercise to have a stimulating effect on the internal operations of the institutions in the long term.
This subsection discussed the five main methodologies that can be used by a quality assurance system: accreditation, self-assessment/self-evaluation, peer review, monitoring/audit and report and follow up. The strengths and the weaknesses of each method were also discussed. The next subsection will look at various criticisms of the quality assurance system as a whole.

2.2.6 Criticisms of quality assurance systems

The 1990s saw a change in the approach to education quality, and this change, according to Harvey and Askling (2003) required higher education institutions to demonstrate, through their institutional leaders and expressed in comparable measures, the quality of its activities. Educational institutions that previously viewed excellence or transformation as the self-evident key indicator of education quality, now emphasise value for money and fitness for purpose. In so doing, they argued that, quality as an implicit, self-evident property of education becomes transformed into a mechanism of control, a process of accountability and compliance that seemed to have no relation to education. This context is also similar in the VTE sector.

Quality, according to Harvey and Askling (2003) is about a change in culture, which involves a slow process of evolution. The delegated accountability approach to quality that emphasises procedures has led to a degree of scepticism about quality. They view it as counter-productive to the development of a quality culture within educational institutions. Harvey (1999) illustrated that in some institutions with a well-established culture of dialogue between teaching staff and students, there were amendments to course content, teaching styles and assessment procedures. However, such a process, he says, was often overlooked as a quality process because it lacked
the formalism of a prescribed procedure. Auditors may examine the paperwork without any apparent concern for the implications it may have on procedures. For example, a non-conformance may be raised because a training list is outdated, an incident that is irrelevant to the actual performance of the training organisation, or the quality of the product or service delivered to customers. At times, according to Love and Li (2000), focus of the audit was such that more attention was given to getting the minute details right with emphasis being placed on inputs rather than outputs, an approach often referred to as ‘counting the spoons’ which requires an educational organisation to have ‘adequate and appropriate means to achieve its goals and objectives’ (NZQA, 2000, p. 6, cited in Blackmur, 2004).

The focus on process rather than outcome in quality assurance has also drawn criticism from other authors such as Blackmur (2004) and Marginson (2001). Both authors argued that a regulatory authority should not concern itself with means and that quality assurance is not a substitute for policy attention to questions of actual quality. Baker (1997) in criticising quality assurance as concentrating on inputs and process rather than outputs, is also critical of the system as being self-serving with unclear criteria for judgement. Karmel (2001) commented that the quality assurance process may in practice turn out to be little more than rituals performed in a superficial manner without any real effect on quality. Furthermore, he argues that quality assurance regimes do not actually provide useful measures of quality. Brown, R. (2000) in commenting about current quality arrangements, stated that whilst there are plenty of comparative data about quality, there is little to tell about quality generally, or about changes in quality. Vidovich (2002) stated that many authors maintain that the quality system approach is a paper trail mentality that does
not develop or improve the organisation, but merely binds it to its rules and regulations.

Another drawback of quality assurance systems which has been identified by Cooper (2000) and Rustin (2000) is the concern that these systems have led to compliance behaviour and inordinate paperwork burdens. According to them, compliance games can be played by educational institutions where a culture of ‘box-ticking’ may emerge. They warn that bureaucratic demands of quality assurance are creating a compliance culture that dampens creativity, rewards conformity and slows down the responsiveness of the system to a rapidly changing environment. This development is rather unfortunate at a time when technological change is transforming the ways in which learning can be facilitated and create new ways of thinking and communicating (Brown, J.S., 2000). Martin (1999, p. 127) acknowledges that ‘accountability can be a potent force both for and against learning’, but she cautioned that monolithic quality assurance processes that penalize staff who do not comply with the quality assurance requirements will only encourage minimal compliance with bureaucratic procedures and will not address the improvement or maintenance of the quality of academic work. The British system, for example, may have initially encouraged better documentation but, by 2001, has deteriorated into a compliance game in which many resources that could otherwise be used for improvement are being diverted to fulfil external monitoring requirements (Harvey, 2002b).

The other risk is that quality assurance leads to the expansion of particular sub-sets of evaluation models which dominate attention and undermine other approaches. In some cases, according to Elton (1992 in MacKay & Kember, 1999), feedback and
surveys become the specialised roles of non-teaching staff. This happens when external appraisal takes responsibility for quality out of the hands of the teacher, who must deliver quality. He warns that this prospect is dangerous as it absolves teachers of the responsibility to evaluate themselves and to strive for improvement in relation to their own objectives and standards. Thorpe (1996) in a similar view, mentioned that it also opens up the possibility of teaching staff to disown findings of the evaluation team since they have not been involved in the feedback process. He further mentioned that the effect of a third-party quality assurance system is that staff from the institution under evaluation may transfer and resist claims of poor quality performance by maintaining that independent authorities had approved their internal systems and/or outcomes and this shift in accountability may result in educational institutions sense of responsibility being diluted.

A few authors (Kanji & Malek, 1999; Laughton, 2003; Woodhouse, 1995) state the vital issue in quality assurance is the efficacy and cost-effectiveness of the quality system, more specifically the question regarding the results obtained in relation to costs and resources. Blackmur (2004) in arguing these views mentioned that there is a widespread consensus that the benefits of at least some forms of external quality assurance exceed the costs, although, he noted that this may probably be a matter of faith more than the outcome of a considered analysis. From a quality management perspective, the quality assurance method has the weakness of relying on inspection and corrective action and according to Kanji and Malek (1999) resulted in inefficiency because of the tediousness and high costs of inspection activity. The added cost in administrative labour hours to develop, implement and monitor any quality system is considerable. Laughton (2003) stated that as education institutions
began to take the quality review process seriously, they devoted more time and resources to preparing for review. Woodhouse (1995) in supporting these arguments emphasised that achieving quality is not cheap and the more elaborate the mechanisms the more will be the costs, in terms of the use of resources and staff time. He contends the marginal returns on extra effort, in terms of the benefits in improvements to the quality of learning outcomes decreases as the quality assurance system become more complex.

Another criticism concerned the approach to quality assurance taken by some countries, for example in Australia, which uses the whole institution basis approach. Guest and Duhs (2003) criticised this approach for not being able to capture the variability of quality across departments, courses and academic staff within an institution. This approach differs from that used in the United Kingdom, where reviews are carried out on individual programmes and courses.

In summarising the critiques levelled against the quality assurance process, it was noted that the various experimentation that has taken place in quality assurance has been detrimental to its efficacy and efficiency. Questions have be asked about the costs, resources and time, administrative burden on staff and departments caused by the increase of bureaucratic procedures and paperwork, the amount of window dressing activity, the increased stress amongst academic staff, and the quality assurance mechanisms imposed from above which could erode or destroy existing, informal academic mutual control systems. Criticisms have also been levelled at the transformation of quality as an implicit, self evident property of education into control mechanisms which seemed to have no relation to education. This transformation lead to a change in the management structure of educational
institutions that gave rise to a class of managers and bureaucrats with limited support from the academic profession. Academic staff perceptions that these managers are a threat to their professional status and autonomy as well as the system’s inability to capture variability of quality across departments, courses and staff within an educational institution are the other criticisms of the quality assurance system.

This section has looked at the concept of quality and quality assurance in education. It also discussed the various definitions of quality and the purposes for implementing a quality assurance system, those who were involved and affected by the system, the approaches and methodologies, as well as the criticisms or weaknesses of the system. The next section will look at the focus of the study, the quality assurance of the assessment system specifically.

2.3 Quality assurance of the assessment system

The second part of the literature review discusses the quality assurance process of students’ assessment. With these purposes in mind, Section 2.3 has been divided into four subsections. Subsection 2.3.1: Students’ assessment, introduces students’ assessment and its importance. Subsection 2.3.2: Quality assurance in assessment process, describes a number of studies on a range of concerns about the quality of assessment in the VTE sector. Subsection 2.3.3: International models, discusses the quality assurance models for the assessment process employed by three countries: the United Kingdom, New Zealand and Australia. Subsection 2.3.4: Approaches to
quality assurance in assessment, details the various approaches used in assuring the quality of the assessment process. These four subsections will be discussed successively.

2.3.1 Students assessment

A reliable, relatively cheap way by which individuals can convince others that they possess certain qualities is clearly vital to the efficient operation of labour markets. A qualification is one of these ways, and can be thought of as a believable signal, usually conveyed in some form of certificate, to the effect that a person possesses the qualities which they claim to possess. According to Chipman (1998), there are a number of stages in the production of a qualification for an individual. The main stages, he says, are design and development, delivery, assessment and certification. In elaborating further, he stated that these stages are frequently coordinated within a vertically integrated organisation, are technologically separable and can be and are, at times, performed by independent, separate organisations. Whether performed collectively or individually, he says, it is arguable that both the organisations involved, and their clients, have a significant interest in the credible processes of quality assurance at each of these stages of production. A person may be qualified but may not possess a corresponding qualification.

People may follow their own programme of learning, or they may attend a college or university. They may acquire certain qualities themselves, or they may pay others to assist, as in the case of enrolling at an educational institution. They do not, however, have this choice when it comes to matters of assessment and certification of these qualities. On these grounds, Blackmur (2004) argued that in terms of efficient labour
market priorities, assessment and certification are the prime candidates for external quality assurance. According to him, individuals are forced to trade exclusively in the market for these particular services and there is a requirement that these markets function effectively. Under these circumstances, he contends, assurances by education and training providers must be given that they conduct assessment and certification in accordance with appropriate standards.

A comprehensive definition of assessment includes the processes of gathering, interpreting, recording and using information from a student’s response to an educational task (Harlen, Gipps & Nuttall, 1992). A vast range of ways of assessing can be identified by combining different means of getting information (for example, observing actions, listening, reading written work) with various kinds of tasks, for example, written tests, examination papers and practical tasks set internally and externally. According to Harlen (1994), the reason for choosing one rather than another of these many possible ways of assessing relates to the requirements for optimum dependability. Assessment is essentially an attempt to get to know about student’s achievement and to find out the nature and quality of his or her learning, their strengths and weaknesses, interests and aversions, motivation and approaches to learning (Rowntree, 1987).

Research has demonstrated that assessment has an enormous impact on both what and how students go about their learning. Assessment methods and requirements probably have a greater influence on how and what students learn than any other single factor. Boud (1985) reasoned that this influence may well be of greater importance than the impact of teaching materials. Black and Wiliam (1998) emphasised that during the last two decades, a great deal of research was conducted
to demonstrate the influence of assessment on what is taught and how it is taught, and what and how students learn. As Resnick and Resnick (1992) put it, ‘you get what you assess’ and ‘you do not get what you do not assess’ and added that assessment is an ‘essential tool’ in education reform (p. 72). Based on this discussion, which emphasised the importance of assessment in education, the next subsection explores the importance of assuring quality of the assessment process.

2.3.2 Quality assurance of the assessment process

This subsection starts with the definition of quality assurance for assessment as defined by the Australian National Training Authority (ANTA). It then raises various concerns on the quality of assessment across the VTE sector by a number of authors.

The Training Package for Assessment and Workforce Training, BSZ98 (ANTA, 1998) defines quality assurance for assessment as ‘a planned and systematic process of ensuring that the requirements of the assessment system, competency standards and any other criteria are applied in a consistent manner’ (p. 136). As is the case in Brunei where the credibility of the VTE system, in particular the students assessment process, was brought into question through a series of reports from overseas moderators as well as from the staff in the DTE itself, similar issues were also noted in other countries. Several studies conducted in Australia and the United Kingdom brought to the forefront a range of concerns about the general quality of assessment across the VTE sector. Initial concerns about quality and consistency of VTE assessment were raised by Schofield (1999a, 1999b, 2000) in her investigations of the traineeship systems in Queensland, Tasmania and Victoria. In the Queensland
review, Schofield (1999a) reported ‘low levels of employer satisfaction with the assessment undertaken by registered training organisations and a clear lack of credibility in the adequacy of the assessment of trainees’ skills’ (p. iii). Similar concerns were also highlighted in the report of the Tasmanian review where it was noted ‘inconsistency in the conduct of assessment derived from problems with training packages and with assessor competence’ (1999b, p. 5). From these investigations, Schofield concluded that the quality of assessment in VTE needed attention.

Other studies in quality of assessment in VTE were conducted by Smith (2000) who undertook a study in Queensland, and Booth, Clayton, House and Roy (2002) who undertook a study to determine the confidence of the practitioners on their assessment practice and their assessment decision-making. The findings of both studies indicated similar problems in the conduct of VTE assessment in both workplaces and institutions. Smith found that assessors were placing unproportionate emphasis on summative assessment and the quantity of evidence they collected rather than on the quality of the evidence and the training itself. In addition, he noted that generally practitioners had not been provided with sufficient assistance on how to deliver quality training and undertake assessment with any degree of quality. Smith’s study also highlighted the need for a process of review to enhance the consistency of assessment approaches, the process of assessment as well as the final judgement of student competence.

In their study, Booth et al. (2002) found that many practitioners were concerned with the lack of consistency in assessment practice and assessment decisions, the new demands that were being placed upon their assessment with the introduction of
training packages and the lack of rigorous quality assurance processes. This study, as that of Smith’s also revealed that assessors were concerned about the quality of assessor training and the lack of ongoing support and professional development. Clayton, Roy, Booth and House (2004) reported that the National Assessment Principles, Standards and Protocols provided under the Australian Recognition Framework were insufficient to ensure the quality or consistency of either the assessment processes or the judgements being made by assessors. Lester (1999) in research undertaken on the delivery of NVQs in the United Kingdom, found that employers and VTE providers were concerned with assessment decision making, in particular, with the decisions about competence. In addition to this, Lester’s findings also showed limited confidence was placed on the quality assurance initiative implemented in the system due to the lack of knowledge and consistency shown by the external verifiers.

In support of these findings, Clayton and House (2000) found that their informants agreed that a lack of currency in either the technical or assessment domains is likely to generate a lack of confidence in the assessment process, which eventually leads to a loss of confidence of employers, industry and other users of the results. Informants in their research also noted their inability to access industries due to the lack of time and resources to access their industries and to discuss and communicate their assessment issues with other assessors.

As a summary, in an attempt to assure quality of students’ assessment, various concerns were identified by a number of authors which included: low level of employer satisfaction on student assessment, disproportionate emphasis on summative assessment and the quantity of evidence, lack of assistance, support and
professional development activities for assessors, lack of consistency in assessment practice and assessment decisions, and a lack of current technical and assessment knowledge of assessors. In an attempt to provide an overview on how these concerns can be eliminated or reduced, the next subsection will look at three different international models of quality assurance systems for the assessment process in VTE.

2.3.3 International models

Several models of quality assurance for the assessment process in VTE are in place. This subsection will look at models used in the United Kingdom, New Zealand and Australia. In looking at only three models, it was acknowledged that this may be a limitation to this review but a detailed description of models from other countries was not available. It was also recognised that these Anglo-Saxon models may differ from other countries, for example, Europeans models. It is hoped that by studying these models and their strengths and weaknesses that the current quality assurance strategies in the assessment process in Brunei’s VTE will be developed and improved.

United Kingdom

In describing the set-up used in assuming quality in assessment in the United Kingdom, Clayton, Booth and Roy (2001) stated that the current system is centralised and highly regulated with prescribed forms of moderation to ensure quality outcomes. The Qualifications and Curriculum Authority (QCA, 1999, p. v) contends that ‘the credibility of any assessment system depends on fair, accurate assessment and effective quality assurance’. Effective quality assurance is seen as
the critical element in building the confidence of all stakeholders involved in National Vocational Qualifications (NVQs). Clayton et al. also emphasised that in the United Kingdom, the quality assurance system has generated a highly regulated approach to assessment, with its dual layer of monitoring making up the quality assurance strategy; internal verification and external verification. The Awarding Bodies’ Common Accord 1997 provided the guidelines for quality assurance arrangements while the guidelines for ‘Implementing the National Standards for Assessment and Verification’ set out how the national standards for assessment and verification units are to be assessed and verified (Clayton et al., 2001). These guidelines state that it is mandatory for each training organisation to use a verification process through the use of internal and external verifiers as part of its quality management procedures. In this model, they say, internal verifiers were appointed and were required to sign off the adequacy of the assessments undertaken as well as the validity of the judgements of competency standards of the training providers.

In further discussing this arrangement, Maxwell (2001) states that linkages across training organisations are needed since the internal verification process is carried out internally and does not address the consistency of assessment across training organisations. He added that formal procedures of agreement between assessors were also established to check for compliance by mandatory internal verification. These are monitored within the training organisations by the appointment of internal moderators who are required to keep records of the internal verification transactions and these are subjected to audit on a regular basis or at the time of registration.
review. In Europe, only Denmark, has developed a similar system of external examining as in the United Kingdom (Cuthbert, 2003).

Studies by Black (1993), Lester (1996, 1997, 1999) and Konrad (1999) highlighted some of the issues and concerns that these authors have with the highly regulated approach adopted for assessment of NVQs in the United Kingdom. Their studies focus on the quality control nature of the UK system which includes increasing external monitoring, external verification and standardisation. Lester (1996) proposed a quality assurance approach to replace the inclination towards the quality control nature of the system as he believed that increasing quality control measures is bound to have detrimental outcomes, even when the public confidence is increased. In his recommendation, Lester encouraged professional development activities for on-going assessors and internal verifiers in order to ensure the desired outcomes of a quality assured assessment system. He also noted that internal verifiers in the United Kingdom did not possess adequate knowledge and training to perform the monitoring tasks effectively.

New Zealand

Compared to the United Kingdom model, the New Zealand Qualification Authority (NZQA) adopts a less rigorous approach in implementing the New Zealand National Qualification Framework. According to Clayton et al. (2001), the Standards Setting Bodies are responsible for establishing unit standards for assessments. These bodies along with training organisations, have the responsibility of ensuring that assessors participate in the designated processes that ensure validity and consistency in assessment. According to them, assessors conducting assessments are required to
complete appropriate training and all assessments conducted against unit standards are drawn from specific industry sectors and are moderated through processes established by the relevant Industry Training Organisations. In discussing internal moderation, they also mentioned that the focus is on achieving consistency between assessors judging the same unit standard in an organisation. The NZQA also requires training providers to develop their own quality assurance systems.

The approach taken by NZQA, according to Maxwell (2001) is a compromise between internal and external verification. He discussed the arrangement in New Zealand, where the inter-provider moderation involves each provider establishing links with one other provider, known as a link provider, to undertake external moderation within the same domain and level of training. This consensus or group moderation, he highlights, was carried out to determine comparability of assessment decisions across a range of training providers. Training providers are required to submit samples of assessments to the link provider for examination. Maxwell also stated that where the link provider cannot approve or verify these materials, the materials are forwarded to a Moderation Coordinator, who is appointed and trained by NZQA moderation services to ‘check moderation’. He goes on to say that NZQA also appoints a National Moderation Coordinator who is responsible for training the Moderation Coordinators and check-moderating samples of Moderation Coordinators’ decisions. A national networking of subject moderators with an evaluation of assessment systems during accreditation and re-accreditation, according to him, was also set up. The New Zealand model, according to Clayton et al. (2004) depends very much on the availability of resources to support the system of monitoring and evaluation.
Australia

In Australia, the Australian Recognition Framework (ARF) and the quality assurance arrangements that are in place in all registered training organisations provide the essential framework or guidelines for ensuring the quality of assessment in the VTE sector. According to Maxwell (2001) the focus of the framework is on whether the proper procedures are in place for an expected outcome rather than whether the outcomes are satisfactory. Maxwell also stated that the training providers are required to undergo registration and they must be able to demonstrate their capacity to undertake assessment, and as part of the process, also implement internal moderation procedures. Self-regulation seems to be the focus of policy underpinning VTE delivery and assessment in Australia. Visitation moderation, sampling of students’ assessment and monitoring and evaluation of assessment and verification practices, according to Maxwell are used to judge whether the quality of assessment and verification of the training providers meets national standards.

The extent and rigour in the review process in the three models differ considerably, the United Kingdom model with its strong tradition of external surveillance, the most regulated system, while Australia’s model is the least regulated. New Zealand represented a middle approach between the three models. The strategies employed by the United Kingdom, New Zealand and Australia may provide insights or guidance on formulating quality assurance approaches for the student assessment process in VTE in Brunei. The next subsection discusses the main quality assurance approaches in students’ assessment practiced in VTE internationally.
2.3.4 Approaches to quality assurance in assessment

Quality assurance, as noted by Maxwell (2001) is a feed forward mechanism in the sense that the application of well defined procedures is expected to deliver the desired outcomes. However, assessment procedures are not well defined since they must be tailored to particular situations and contexts. The judgement of competence, according to Cresswell (2000) is itself not capable of being explicitly defined so that consistency is delivered automatically. Maxwell (2001) also stated that a quality assurance procedure was adopted to monitor and endorse, and where necessary to adjust or correct, the actual implementation of some activity while it is being implemented and before its completion. Assessment in VTE, with its set of procedures, he contends, would still require properly trained and professionally committed assessors and the actual assessment procedures and judgments need to be checked to ensure that the assessment procedures are appropriate and will result in consistent judgments of competence. Maxwell (2001) highlights that research on assessment shows that different people interpret written standards differently. The inconsistent and different interpretation of meaning, he warns, will result in problems in the enactment of competency statements.

A number of authors proposed strategies essential in maintaining the integrity of assessment being conducted. These include promotion of good practice, consensus moderation (Smith, 2000), the use of exemplars, and networking (Wolf, 1993). Toop, Gibbs and Worsnop (1994) established a framework for an assessment system that includes elements of a comprehensive quality assurance strategy such as screening and training of assessors to ensure assessors’ competency, verification of
assessment decisions (both internally and externally), appeal mechanisms and process, and a review of the assessment systems.

This literature review will look at the three main strategies: competent assessors, internal moderation and external moderation/examiners used in assuring quality of the assessment process. These strategies are discussed individually.

**Competent Assessors**

To a large extent, attempts to ensure the quality of assessment in VTE around the world have focused on the procedures used in the assessment process. Several studies including those by Schofield (1999a) and Smith (2000) in Queensland have highlighted the need to address the quality and consistency of the assessors’ judgements, in addition to the nature of the procedures they follow.

In the VTE system, assessors are said to be accountable whenever their assessments are monitored and when there are associated consequences. When assessors take into consideration the possibility of third party verification, they are accountable for their actions. Seigel-Jacobs and Yates (1996) have identified two types of accountability in the assessment process: procedural accountability, which requires assessors to justify the procedures used, and outcome accountability, which requires assessors to justify the quality of assessment outcomes. These authors argue that procedural accountability has more beneficial effects on assessment judgement and quality than outcome accountability because it encourages assessors to gather and use more information to improve consistency of judgements and information-processing strategies employed by the assessors. Seigel-Jacobs and Yates however
concluded that outcome accountability was found to be more detrimental, as assessors tried to represent themselves in a more positive manner in line with expected views of the stakeholders, which could lead to lower levels of accuracy, resulting in poorer assessment decisions.

The level of expertise required in carrying out assessment in VTE has been well acknowledged. VTE assessment demands a substantial amount of tacit knowledge and judgement on the part of assessors and a considerable degree of responsibility is entailed in making judgements about student’s performance (Docking, 1997; Jones, 1999). The inconsistencies in assessment practice, limitations in assessors training and the lack of ongoing professional development have an influence upon assessment outcomes. According to Clayton et al. (2004), these factors when combined with ineffective quality assurance processes, are likely to have a detrimental effect on the confidence of the stakeholders involved in VTE. Poor assessors’ judgement on student competence will have significant consequences towards the credibility of the VTE system (Fechner & Hill, 1997). Docking (1997, p. 19) in supporting this view suggested that ‘the implication of getting the judgements incorrect, however, is also likely to be significant’.

The dangers of incompetent assessors go far beyond the classroom. They can have an impact on a person’s whole life and can harm their future clients or employers. Gillis, Griffin, Trembath and Ling (1998) noted that a major concern of workplace trainers and assessors was the lack of rigour and quality assurance in the training process. Smith (2000) confirmed this view with his study of pre-service training programmes, and commented on what he called a ‘pervasive and deep concern’ in relation to assessor expertise (p. 10). Smith also reported that VTE ‘assessors
training is frequently conducted by people who have no expertise in assessment beyond the level of the course they are conducting, and so lack the capacity to significantly lever quality assessment into the system’ (p. 11).

In his study, Smith’s (2000) also found that there was inadequate support for the actual doing of assessment as distinct from the general principles for conducting assessment and that the associated training provided to assessors was of poor quality and with doubtful validity. Smith concluded that the training of assessors and verifiers is an essential component of quality assurance, because assessment and verification are themselves professional processes requiring special expertise. Clayton (2002) recommended that professional development, forums and networking be organised as they are important in supporting and helping assessors conduct valid, reliable, fair, flexible and cost effective assessments. Maxwell (2001) highlights the importance of improving the quality of assessors and assessments before inadequacies and inconsistencies become more pervasive and more noticeable and perhaps threatening to the integrity of qualifications.

As no specifications of criteria can ever be clear enough to prevent assessors from sometimes being inconsistent in their judgements, Rakkolainen and Ecclestone (2004) recommend the enhancement of transparency of the assessment criteria and processes of quality assurance. At the same time, assessors need to be trained to use them effectively. This approach, they added, will motivate assessors and students and increase the trustworthiness and credibility of any assessment tasks. In a similar view, Eraut (1994) noted that evidence has shown that once training and regular communication has been established, assessors should be able to ensure sufficient
standard use of criteria. However, he added that standardisation can easily slip if regular training and communication is not maintained.

**Internal Moderation**

The previous part of this subsection looked at assessors’ competency as one of the strategies used in assuring the quality of the assessment process. This part of the subsection will look at the second strategy, internal moderation.

Moderation refers to a particular process of quality control involving the monitoring and approval of assessment procedures and judgments to ensure there is consistency in the interpretation and application of the performance standards (Maxwell, 2001). Foyster (1995, cited in Clayton & House, 2000) defines moderation as ‘a fault-correction device designed to achieve improvement at the lowest possible cost’ (p. 135). Moderation also means social moderation in the sense used by Linn (1996) while Booth et al. (2002) and Maxwell (2001) use validation as another term for moderation. In recommending the use of moderation, Smith (2000, p. 16) wrote that ‘the belief is that a moderation system would not only set, propagate and check assessment standards but would also facilitate the sharing of good practice approaches for assessment across the system’.

In discussing moderation, Booth et al. (2002) mentioned that it is typical for moderation to involve a single person (a moderator) or a group of people (a moderation panel) looking at a sample of evidence of student performance, determining whether they agree with the assessment judgment of the assessor. Feedback to the assessors, they say, may include advice on improving their
assessments and adjusting their assessment standards, that is, modifying their judgment of what constitutes competence. They go on to say that internal moderation ensures that different applications of performance criteria or performance benchmarks remain within acceptable limits and that moderation can be seen generally as a form of quality management with its collegial orientation of support rather than a managerial orientation of control. Maxwell (2001) highlights the need for every moderation system to identify the main authority for approval purposes, the appropriate balance of rights and power of all participants and the guidelines on resolving differences of opinion. The implication from moderation, he contends, is the need for some adjustment of those judgements to conform to the common standard. He also remarks that moderation is an active process in which assessment judgements are aligned with each other to create consistency of interpretation and implementation of standards across the whole system and is not a process that simply checks how much agreement there is on the assessor’s judgement.

Moderation procedures, as argued by James (1994) were devised to reduce sources of error such as variation in the demand or opportunity provided by the tasks undertaken by students, differences in interpretation of performance criteria or marking schemes and the intrusion of irrelevant contextual information in making judgements. Harlen (1994) added that the sources of error were seen to be greatest in particular circumstances while at the same time preserving validity of assessment as required for quality in assessment. Moderation, according to her, helps to achieve uniform interpretation and application of standards in a competency based assessment system, and helps to establish comparability in identifying, describing
and recording skills and knowledge by allowing for the development and maintenance of standards. A verification process achieves uniformity when assessors work towards a common understanding and use of concepts, terminology and application. Thus verification helps to ensure that assessment activities yield valid results. However, actual implementation of verification/moderation procedures in VTE has found to be relatively scarce, particularly in low accountability situations (Bloch & Thomson, 1994).

Moderation procedures were categorised into two kinds by Harlen (1994). The first category is that related to adjustments of the outcome of assessment in order to improve fairness to groups and individuals. According to her, this takes place after the assessment has been made and is designed to ensure fairness by adjusting results when there seems to be inconsistencies or systematic differences in the way procedures have been followed. The second category is related to the process of arriving at fair assessment for groups and individuals, which will in some cases, extend to opportunities to learn as well as to be assessed. This process takes place before the assessment is completed and is designed to improve the process of assessment in order to ensure that consistency has been achieved, rather than to impose it on an otherwise inconsistent assessment system (NISEAC, 1991, para 10.1 cited in Harlen, 1994). Harlen (1994) also stressed that the overall purpose of both categories was not just to adjust marks and settle disputes, but to improve the quality of the assessment process.

Moderation, according to Laxer and Young (2000) occurs in a continuum, with the teacher being responsible for preparing and grading assessment tools at one end and at the other end there is an imposed quality model with rigorous, formal, sometimes
bureaucratic procedures. The first model, they contend, gives professional autonomy to the teacher, while the latter model sees the teacher as a perfectly self monitoring individual. Clear (1996, cited in Laxer & Young, 2000, p. 179-180) in explaining this view states that the teacher ‘setting the exam could be conceived as the wise, omniscient professional’ who clearly ‘foresees the way students will interpret the exam, is able to determine its length and level of difficulty accurately and consistently over each iteration of the course, and can word it with such precision and brevity that ambiguity is a logical impossibility’.

Group moderation is also an effective, and possibly cost efficient, form of professional development and its positive impact is well accepted and documented (Harlen, 1994). Group moderation, according to Kindler (1996) is used to help teachers arrive at shared understandings of the criteria and of assessment processes which are a prerequisite to the consistency of standards. In a field with a relatively high proportion of seasonal teachers, many of whom move in and out of the field, moderation according to him, serves as enforced professional development allowing teachers to develop professional networks as well as common understanding of the curriculum, including assessment. In her study, Harlen (1994) found that inter-school meetings of teachers have a greater impact on reliability at the system level than intra-school meetings. Such meetings result in greater consistency of standards and at the same time, have a positive affect on teaching (Gipps, 1994), assessment processes and on the assessment product or outcome (Harlen, 1994). From his study, Sanguinetti (1995) noted that group moderation as a whole is regarded positively by most participants. Shared understanding of criteria and the assessment process are referred to as the professional development element of group moderation.
However, the complex role of internal moderators as suggested by Konrad (1999) is often under-resourced and those carrying out this role have barely adequate initial education and training to undertake the tasks effectively. In a similar view, Bassnett (1996) states that some academics recognised that such a role is time consuming, uninteresting and depressing.

**External Moderators/Examiners**

The third and final strategy in assuring quality of the assessment process discussed in this review is the use of external moderators/examiners.

Achieving quality in the assessment process has always been a struggle between the internal and the external of an educational institution, both in the nature of the assessment and the nature of the control over the assessment. Referring to the context in the United Kingdom, Wilmut and Murphy (2001) state that the public perceptions of quality tend to focus on the external rather than the internal and it is difficult for the public to envisage systems in which there is no quality control. De Beaugrande (n.d) noted that the external examiner system which is currently in force and used extensively in the United Kingdom has been exported from there to many other regions of the world and the official premise of the whole exercise is merely to ‘improve’ the ‘inviting department’ and ‘benefit the less experienced internal examiners’ (p. 1). According to him, the external examiner system have been used for verifying coursework assessments in schools, setting and marking assessments in university and checking the validity of vocational assessments, all of which are concerned with the quality of assessment processes and judgements.
In discussing external moderation, Jackson (2004) states that external moderation involves observation, enquiry, evaluation, decision making, forming opinions and providing advice and guidance. On the whole, the task of an external moderator, according to him, includes examination, checking and evaluating a body of evidence relating to the assessment of students’ learning and making judgements about the quality of the assessment process and the standards of learning. From these opinions, he concluded that the overall judgements on the comparability of outcome standards, the fairness to students, and the integrity of the award process can be made. This process, he contends, allows external moderators to share their knowledge of practice, provide advice, guidance and feedback to teachers that will enable them to position and improve their own practice in relation to the practice of others, solve problems and identify strengths and weaknesses in their areas.

The four roles for the external moderators as noted by Jackson (2004) are: first, a benchmarking agent who enables departmental standards to be compared with standards and practices in institutions that offer comparable programmes. Second, an auditor of procedures and processes who judges the rigour of the standards setting processes, looking for compliance and offering constructive challenge to improve practice. Third, an external consultant who confirms that the teaching and assessment practices in a department are in line with what is happening elsewhere. They provide support and enhance confidence by highlighting departmental strength, help in identifying and thinking through particular problems, and contributing new resources, for example, new materials for teaching. Lastly, external moderators also help in departmental decision making, providing the perspective of an objective outsider in order to advise, arbitrate and help overcome resistance.
From his research findings, Jackson confirmed that external moderators remain a valued and useful form of peer review.

In detailing the advantages of external moderators, Maxwell (2001) includes the external moderators’ ability to offer authoritative interpretations of competency standards, their ability to carry the standards from site to site and assessor to assessor, their ability to offer advice on assessment approaches and procedures, to observe actual conduct of assessments, their ability to act as a trouble shooting resource for assessors to draw on and to induct beginners into performing high quality assessment.

The Council for National Academic Awards (CNAA) (1989, cited in Cuthbert, 2003) in their report identified the external moderators/examiners as being in a unique position in the quality assurance set up, since their appointments are based on their subject specialist expertise and standing, and their capacity to work with internals to inform, develop, and assure the structures and practices of the institution. However, the same report also argues that since they are only subject specialist experts, their judgements and actions are based on the knowledge and experience of the subject with little or no knowledge about examinations and the measurement of human performance. The Council recommended training workshops and regular meetings for external examiners as they believed these activities would make a significant contribution.

Other critical issues with regards to the external moderation systems were raised by the Higher Education Quality Council (HEQC) in their 1994 report. They were critical that the system had no agreed or used standards, criteria or procedures for
nomination, selection and appointment of external examiners. The report also identified variation in the quality of briefing for external examiners, and variation of the impact of external examiners on the operation of programmes. The reports the external moderators produced were sometimes uninformative and not helpful for assessing the aspects of the programme of study. In another HEQC report (HEQC, 1996), it was mentioned that the external examiner system will no longer be plausibly described as effective in calibrating standards across institutions.

This section has looked at issues of quality assurance of the assessment process. First, it introduced students’ assessment and its importance. Then, it described the various studies on a number of concerns about the quality of assessment in VTE. It also described three international models of quality assurance of the assessment process used by the United Kingdom, New Zealand and Australia. Finally, this section discussed the three strategies used in assuring quality of the assessment process: competent assessors, internal moderation and external moderators/examiners. The following section will summarise the literature review findings and discussed their utilisation in this study.

2.4 Summary of the literature review findings and their utilisation in the present study

Selected literature was reviewed on the topics related to the problem areas under investigation. This section summarises the areas and findings of the review. The
utilisation of these findings in the present study was also explained for each of the problem areas.

The review of literature on the definition of quality in education, in general, and in VTE in particular reveals that the concept is not easy to define. Various definitions were given, with no common agreement, which reflects the complexity of the meaning of quality from Ball’s (1985) simple answer: quality is fitness for purpose, to Harvey and Green’s (1993) and other authors, very definite answers which grouped the definitions into five approaches: quality as exceptional, quality as consistency, quality as fitness for purpose, quality as value for money and quality as transformation. These definitions along with the arguments put forward by these authors are summarised in Table 2.1.

### Table 2.1 Definitions of quality

<table>
<thead>
<tr>
<th>Definition 'Quality is …'</th>
<th>Concept of quality</th>
<th>Example</th>
<th>How measured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exceptional</td>
<td>Product based</td>
<td>Exceeds a particular standard or customer satisfaction</td>
<td>Measure feature exceeded expectation</td>
</tr>
<tr>
<td>Consistency</td>
<td>Product based</td>
<td>Conformance to specification or requirement</td>
<td>Measured against what is promised</td>
</tr>
<tr>
<td>Fit for purpose</td>
<td>User based</td>
<td>Fulfils customer expectations</td>
<td>Level of customer satisfaction</td>
</tr>
<tr>
<td>Value for money</td>
<td>Value based</td>
<td>Cost and price</td>
<td>Effectiveness and efficiency. Same outcome with lower price or better outcome with same price</td>
</tr>
<tr>
<td>Transformation</td>
<td>Value added based</td>
<td>Enhances participants knowledge, skills and abilities</td>
<td>Participants performance and change in knowledge, skills and abilities</td>
</tr>
<tr>
<td></td>
<td>cognitive change or transcendence</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

89
There is consensus among some authors that education is a sector with many stakeholders, who perceive quality with different combinations of dimensions. The different definitions of quality also reflect the different concerns at different levels. The term stakeholder was defined and the stakeholders in the VTE sector were identified. They consist of the funders, training providers and users which include students, employers and the community. This study will focus on two of these stakeholders, policy makers or VTE administrators and implementers or teachers.

The review of literature on the definition of quality assurance in education, in general and in VTE, revealed it to be less problematic. Most authors agreed that a quality assurance system documented procedures with the aims of ensuring that the overall process meets specified objectives. The review of literature revealed five interrelated factors in explaining the increased importance and strengths of the quality assurance movement. These included the potential decline in academic standards due to massification, lost of stakeholders’ confidence of traditional academic quality management capabilities, budget restrictions, increased demand for accountability and the increase in competitiveness and diversity of the education environment. The review of literature also reveals five purposes or functions of the quality assurance mechanism. They are improvements of education, accountability, public information and market transparency, allocation of resources and planning and control mechanisms.

The review of literature on the definitions of quality in education and the purposes or functions for implementing a quality assurance system were essential to understand the way the stakeholders in VTE in Brunei define quality and to assess
whether their definition of quality and perceptions of the purpose for the quality assurance implementation were grounded on similar principles as in the literature.

The literature review provide a variety of approaches and methodologies to quality assurance which are worthy of closer examination especially when creating or planning to implement a quality assurance system in VTE in Brunei. These include accreditation, self-assessment/self-evaluation, peer review, inspection or monitoring and reporting and follow-up. The strengths as well as the weaknesses of each approach were discussed and are summarised in Table 2.2.

The literature review also highlighted a number of criticisms from various authors on quality assurance in general. This ranged from its control mechanism nature, focus on accountability and compliance, focus on process rather than outcomes, expansions of particular sub-sets of evaluation models, efficacy and cost-effectiveness of the system, and the approaches taken in its implementation. The importance of this part of the review serves as a guide, and provides information for planning and implementing a quality assurance system in VTE in Brunei.
<table>
<thead>
<tr>
<th>Methodology</th>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accreditation</td>
<td>Qualification recognized by own country, if not across the region.</td>
<td>Works towards uniformity,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fails to prevent problems of academic and administrative integrity.</td>
</tr>
<tr>
<td>Self-assessment/Self-evaluation</td>
<td>High degree of ownership,</td>
<td>Managerial,</td>
</tr>
<tr>
<td></td>
<td>Improves good governance,</td>
<td>Lack of openness if related to accountability,</td>
</tr>
<tr>
<td></td>
<td>Provides feedback,</td>
<td>Academic learns to play with the system,</td>
</tr>
<tr>
<td></td>
<td>Effective and cost efficient,</td>
<td>Introspective, thus biased.</td>
</tr>
<tr>
<td></td>
<td>Less threatening,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>More accurate and fruitful.</td>
<td></td>
</tr>
<tr>
<td>Peer review</td>
<td>Strengths credibility, legitimacy and recognition of results of self-</td>
<td>Staff views it as empathy and a futile exercise,</td>
</tr>
<tr>
<td></td>
<td>assessment,</td>
<td>Ineffective in revealing what is really going on,</td>
</tr>
<tr>
<td></td>
<td>Brings outside perspectives,</td>
<td>Untrained reviewers.</td>
</tr>
<tr>
<td></td>
<td>Flexible, ability for quick response, broad acceptance by educational</td>
<td></td>
</tr>
<tr>
<td></td>
<td>provider,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High content validity.</td>
<td></td>
</tr>
<tr>
<td>Inspection or monitoring</td>
<td>Challenges internal assessments,</td>
<td>Low level of acceptance,</td>
</tr>
<tr>
<td></td>
<td>Provides support and counselling,</td>
<td>Episodic exercise in professional back scratching,</td>
</tr>
<tr>
<td></td>
<td>Acts as a control mechanism,</td>
<td>Lack of openness,</td>
</tr>
<tr>
<td></td>
<td>Experience, exposure and awareness of staff to procedures.</td>
<td>Creates sense of anxiety, persecution and declining staff morale,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Documentation preparation a burden,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Inhibits innovation leading to uniformity,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Time taken,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Effect is temporary if no relation to self and peer assessment.</td>
</tr>
<tr>
<td>Reporting and follow up</td>
<td>Possibility for discussion,</td>
<td>Tracking response to recommendations.</td>
</tr>
<tr>
<td></td>
<td>Could influence desirable outcomes if done properly.</td>
<td></td>
</tr>
</tbody>
</table>

Table 2.2: Strengths and weaknesses of the various methodologies in quality assurance
In Section 2.3, students’ assessment and its importance were discussed. The definitions of quality assurance in assessment were examined. The literature on moderation and verification processes in the United Kingdom, New Zealand and Australia provide a number of models worthy of closer examination, as do some recent research and development activities from within the VTE sector itself. These models range from the rigorous approach taken by the system in the United Kingdom to a less rigorous approach in New Zealand to the approach in Australia, which focuses on self regulation with no guidelines for undertaking quality assurance measures for the assessment process. The review of literature also reveals and discusses the three strategies used for assuring quality of the assessment process. These strategies include competent assessors and internal and external moderation/examiners. These are summarised in Table 2.3.
<table>
<thead>
<tr>
<th>Methodology</th>
<th>Strengths</th>
<th>Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competent Assessor</td>
<td>Assessors are accountable for their actions,</td>
<td>Inconsistencies in assessment process,</td>
</tr>
<tr>
<td></td>
<td>Able to justify procedure and quality of assessment outcomes,</td>
<td>Lack of assessor training and ongoing professional development,</td>
</tr>
<tr>
<td></td>
<td>Able to make good judgement and possess tacit knowledge.</td>
<td>Incompetent assessment can affect classrooms, a person’s life, clients and employers,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Inadequate support for actual doing of assessment,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Incompetent assessor may threaten integrity of qualification.</td>
</tr>
<tr>
<td>Internal Moderation</td>
<td>A form of collegial orientation of support,</td>
<td>Identifying main authority for approval purposes, the balance of rights and power and the guidelines on resolving differences of opinion,</td>
</tr>
<tr>
<td></td>
<td>Reduces sources of error,</td>
<td>Lack of manpower,</td>
</tr>
<tr>
<td></td>
<td>Helps achieve uniform interpretation of performance criteria,</td>
<td>Lack of adequate training to undertake the task,</td>
</tr>
<tr>
<td></td>
<td>Helps established comparability in identifying, describing and recording skills and knowledge,</td>
<td>Time consuming and stressful.</td>
</tr>
<tr>
<td></td>
<td>Ensures uniformity,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cost efficient form of staff development.</td>
<td></td>
</tr>
<tr>
<td>External moderation/</td>
<td>A benchmarking agent,</td>
<td>Moderators only subject specialists so have little knowledge on examination and the measurement of human performance,</td>
</tr>
<tr>
<td>examiners</td>
<td>Improves the inviting departments,</td>
<td>Issues of agreed standards, criteria and procedures for nominating, selecting and appointing external examiners,</td>
</tr>
<tr>
<td></td>
<td>Benefits the less experienced internal examiners,</td>
<td>Variation on the impact of external examiners,</td>
</tr>
<tr>
<td></td>
<td>Sharing knowledge of practice, provides advice, guidance and feedback,</td>
<td>Reports sometimes are uninformative, not helpful in assessing aspects of a programme of study,</td>
</tr>
<tr>
<td></td>
<td>Ensures comparable standards and practices between institutions,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Process and procedures are audited,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provides perspective of an objective outsider.</td>
<td></td>
</tr>
</tbody>
</table>
The information from the literature review on the quality assurance approaches (such as accreditation, self-assessment/evaluation, peer review, monitoring and reporting) as well the strategies and initiatives specifically related to quality assurance of the assessment process (such as assessor competence, internal moderation, external moderation/examiner) provided a guide, a comparison as well as a set of variables. These guidance, comparison and variables are required for exploring and assessing the current practices of the DTE and its VTEIs in ensuring quality in general and the quality assurance of the assessment process specifically, its effectiveness as well as the recommendations for its improvements as perceived by the stakeholders. This information was also used in relation to the issues/challenges confronting the DTE and its VTEIs as well as those issues related to human resource provision in an attempt to ensure a quality VTE provision.

The next chapter will present the research design and methodology used in this study.
CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter introduces and justifies the research approach used in this study. First it provides a brief explanation and justification as to why mixed qualitative and quantitative methods were adopted for this study. This is then followed by an explanation of the research design utilised in the study, detailing the specific characteristics which include the role of the researcher and the selection of the participants. It then details the research characteristics of the study, which includes details of data collection techniques, their developments and inter-relationship, and data analysis leading to the development of the dissertation. Finally, the issues of quality criteria and ethical considerations are discussed.

3.2 Research approach

The development of scientific knowledge is influenced by paradigms, or philosophical viewpoints, which provide an ontological perspective that guides epistemology and research methodologies (Crookes & Davies, 1998). All paradigms
create knowledge that can describe and explain the phenomenon which is being studied. The selection of the most appropriate method for a particular study is the responsibility of the researcher. Shulman (1998, p. 16) observes that ‘the selection of [a] research [methodology] is frequently related to theoretical or ideological commitments of the investigators’. This implies that researchers shape their own methodology according to their needs, perspectives and preferences.

Various individuals have contributed to our understanding of the benefits of different methods used for collecting and analysing data. Wolcott (1994) explains the importance of situating the methodology used in research within an appropriate body of literature. As Goetz and Le Compte (1984, p. ix) state, ‘good research, regardless of the model followed, must fit the questions asked and must adhere to certain operational canons’.

When choosing a research design and methodology for this study, two major factors influenced the researcher’s decision. First, the research approach was viewed in the context of the relevance of the research questions. Second, the chosen methodology needed to have the ability to address the aspects of a quality assurance philosophy. Dawson (1997) observes that many people believe that researchers are placing too much emphasis on objectives and questions to which research should be directed, with little attention to actual research designs and methods. He further quoted Gelso (1997), Golgfried (1984) and Magoon and Holland (1984) as stating that more attention should be placed on the training of researchers on aspects of research methodology. This is due to the importance of reliable data in any research study. Reliable data come from correct application of research methods, an appropriate
research design, appropriate instruments and correct approaches to collecting these data.

Researchers collect data as a critical part of the process of research. The choice between quantitative and qualitative methods for social studies is based on different assumptions and comes with inherent strengths and weaknesses. It is therefore more important to use different methods to solve specific problems than to advocate a universal approach for all problems. Researchers in educational evaluation claim that there are benefits in moving beyond the traditional practice of choosing one over the other of either quantitative or qualitative approaches and instead, combining the two methods. Tesch (1990) asserts that, beyond these two existing types of research, quantitative and qualitative, there should be a third, called ‘mixed’, where researchers use both quantitative and qualitative approaches together. Researchers have used mixed methods successfully, depending on the purpose or intent of the research.

In this study, the researcher used a combination of methods in the study of the same phenomenon based on the assumption that any bias inherent in the particular data sources, researcher and method would be minimised when used conjunctively. Combining methods in a single study helps with the convergence of results and complementarity of evidence (Creswell, 1994; Greene & Caracelli, 1997). Silverman (1993) argued that the use of multiple methods could help deepen understanding of an issue, (although it did not guarantee validity) and affords researchers opportunities for greater completeness with respect to answering questions (Patrick & Middleton, 2002). Creswell, Plano Clark, Gutman and Hanson (2003) have postulated that using mixed methods can offset the disadvantages that
certain methods have by themselves. Johnson and Turner (2003) refer to this as the fundamental principle of mixed methods research. Methods, according to them, should be mixed in a way that has complementary strengths and non-overlapping weaknesses.

Further support for the usefulness of mixed methods came from Green et al. (1989, cited in Tashakkori & Tedlie, 2003), who proposed five functions for such methods: triangulation, complementarity, development, initiation, and expansion. The first two functions of mixed methods are related to the fact that mixed methods lead to multiple inferences that confirm or complement each other. In agreeing with the views of Tashakkori and Tedlie (2003), the use of mixed methods in this study was a solution to research questions which could not be answered by either method. The adoption of different perspectives in this study could also reveal greater diversity of views, or highlight ambiguity and contradictions that a single method would not.

In this study, the two kinds of data collection methods were used sequentially, first the qualitative method, followed by the quantitative method. Qualitative methods were initially used in this study as these are particularly well suited for exploratory studies for which previous literature is limited (Crabtree & Miller, 1999). Qualitative methods are also used to uncover or understand what lies behind a phenomenon about what little is known or alternatively to gain a fresh understanding about that which is already known. There is an underlying assumption that meaning is not discovered but constructed by human beings as they engage with the world they are interpreting (Crotty, 1998). In some circumstances, as noted by Allan (1991), qualitative research is often used as a precursor for additional quantitative investigation because qualitative information enables researchers to generate varied
ideas and hypotheses. In many cases these ideas are explored and tested using quantitative methods. In this study, the use of quantitative techniques is used for ‘corroborating findings initially noted from qualitative methods’ (Rossman & Wilson, 1985, p. 638). A quantitative method was also employed as it could provide quantifiable data about specific quality and quality assurance issues. In the present study, it was also used to draw some generalisations on the views of both groups of stakeholders about the issues under examination.

3.3 Research design

This particular section of Chapter Three endeavours to achieve two general purposes. First, it examines the specific characteristics of this study. This includes the role of the researcher and the selection of the participants. Secondly, it describes the research characteristics of this study. This includes a description of the data gathering instruments and the development and implementation of data collection instruments as well as the schedule for fieldwork. The characteristics of the study are discussed in turn.

3.3.1 Researcher’s assumptions

Most scientists now concede that no research is value free (Caelli, Ray & Mill, 2003). A researcher should disclose his/her values and perspective so both the reader and the researcher can take those values into account in understanding the findings. Within this research study, the researcher was principally responsible for the collection and analysis of data. The researcher would also bring into the research process a series of attributes, making his perception of data different from those of
another researcher (Denzin, 1989), thus, there is a need to make explicit any of the researcher's background experience that might influence the research and its findings (Merriam, 1998; Stake, 1995).

The researcher therefore, declares that he was deeply involved in the issue he researched. The researcher constructed his personal involvement as not only relevant to this study but also a ‘valuable asset’ (Reinharz, 1992, p. 258). The researcher’s direct experience of working in VTEIs in Brunei positioned him within the object and the process of his inquiries (Middleton, 1993), with personal and professional experience forming a valuable ‘touchstone’ (Strauss & Corbin, 1990, p. 36). Like Edwards (1999), the researcher was a ‘deep insider’ researcher for much of this inquiry, since he worked in two of the VTEIs for more than 15 years. The researcher, therefore, claims some of the advantages Edwards (1999) has identified for such a position, especially his awareness of the extraordinarily rich under texture of the organisation, and some ‘reasonable beliefs about the history, the corpses, the heroes, the skeletons, the failures/successes, the behaviours and attitudes of individuals within the organisation/group’ (p. 4). As a result of this situated knowledge, the researcher also claims the potential for a deeper understanding and greater insight than an ‘outsider’ researcher might bring to the task, while remaining mindful of the doubts/uncertainties/dilemmas Edwards also outlines.

There is little doubt that the researcher began the study in favour of more ‘formal’ quality assurance procedures for the assessment process and a proper monitoring of the way it should be implemented. He had also been influenced by the attitudes of others related to the VTE sector in Brunei, especially senior administrators. Even though the researcher was influenced, he did however, discuss these issues with
others such as his supervisors and colleagues, and through his reading of the literature has undertook a reflective process that gave him some distance.

The context in which the study was conducted, in which the researcher is a member of the DTE, and has worked in two of the VTEIs over many years as a teacher and an administrator, and the participants are staff members, could be seen to inhibit free expressions and feelings. The researcher was very much aware that his credibility and rapport with teachers and administrators in the DTE and its VTEIs may have had an effect on the research in terms of the conduct and support the research received. The relationship between the interviewees and the researcher could be described as professional and friendly. Consequently, the trusting and collegial relationship (Bosner & Grundy, 1988; Williams, 2003) based on a positive rapport (O’Donoghue & Dimmock, 1998) necessary to commence and develop the investigation into the perception of stakeholders of the quality assurance process already existed. In this sense, the first step within the research process of getting to know the participants (Morse, 1994) had already occurred well before data collection started. The researcher’s intention was to use this existing relationship to remove any initial form of resistance by the participants about participating in this research study. The researcher agrees with Weirsma’s (1995, p. 214) comment that ‘if a researcher is conducting a study in her or his own [organisation], access [for fieldwork] may be automatic and data collection can be quite unobtrusive’. Morse (1994, p. 222), however, warns that ‘it is not wise for an investigator to conduct a qualitative study in a setting in which he or she is already employed and has a work role’, one of the reasons being that a dual role as an investigator and as an employee can be incompatible, thereby placing the researcher in an ‘untenable position’. There
is always the possibility that some interviewees’ responses were directed towards trying to ‘please’ the researcher rather than expressing their genuine opinions.

The friendly relationship between some of the interviewees and the researcher could also have caused biases. Friendship may have biased data selection and minimised objectivity in three ways (Glesne & Peshkin, 1992): by subjectively selecting participants who are more likely to support the researcher’s personal views, by ignoring the potential contribution to the data by participants whom the researcher did not know as closely and by not feeling free to delve too deeply into a participant’s causal factors for fear of adversely affecting their relationship. However, it must be reemphasised that the nature of the researcher relationship with each of these participants was professional and friendly. It was not a social relationship or a personal friendship. While this limited the potential validity and authenticity risks to some degree, this problem was minimised by adopting a variety of research instruments which provided a capability to assess consistency and inconsistency in stakeholders’ reports of their perceptions. A caution by Mertens (1998) that the validity of the information is contingent on the honesty of the respondents was also considered. The extent to which the respondents would trust the researcher to maintain confidentiality and the ways in which the researcher addressed this issue will be discussed in Section 3.6.

Having discussed the role of the researcher, the next subsection will describe the samples used in the study.
3.3.2 The sample

This study involved a number of samples of two groups of stakeholders in the area of VTE consisting of administrators and teachers from the DTE and the five VTEIs namely Maktab Teknik Sultan Saiful Rijal (MTSSR), Maktab Kejuruteraan Jefri Bolkiah (MKJB), Sekolah Vokasional Nakhoda Ragam (SVNR), Sekolah Vokasional Sultan Bolkiah (SVSB) and Pusat Latihan Mekanik (PLM) (refer Appendix A for their descriptions). The informants selected for the interviews were a purposeful sample using the maximum variation technique (Patton, 2002), which is appropriate and necessary for exploratory studies. That is, the individuals were selected because they were believed to be information rich sources who were able to provide reliable data in order to gain insights into the problem areas under investigation and because of their willingness to be interviewed. Purposeful sampling, also called theoretical sampling, provided richness and complexity to the emerging data analysis so that the data collection was controlled by the emerging theory (Glaser & Strauss, 1967). The researcher sought informants who played key roles in the quality assurance initiatives.

Principals from each of the VTEIs were interviewed and in three VTEIs, the principals selected the teachers to be interviewed based on the criteria provided (Table 3.1).
Table 3.1  Criteria for sampling

<table>
<thead>
<tr>
<th>Samples</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrators (including staff in the PDS</td>
<td>Work in the Department of Technical Education.</td>
</tr>
<tr>
<td>section, Secretariat section, and principals</td>
<td>Have currently been dealing with jobs related to aspects of quality</td>
</tr>
<tr>
<td>of VTEIs)</td>
<td>assurance development and making decisions on quality assurance initiatives.</td>
</tr>
<tr>
<td>Teachers (Lecturers and instructors)</td>
<td>From any one of the five VTEIs, namely MTSSR, MKJB, SVNR, SVSB and PLM.</td>
</tr>
</tbody>
</table>

In the other two VTEIs in which the researcher had worked for several years, he selected teachers who met the specific criteria and were believed to be information rich sources who were able to provide reliable data. The interviews with administrators were conducted in order to identify how the policy is reflected in the management and what differences, if any, existed between administrators and teachers when interpreting the issues. A total of 21 individuals were interviewed (Table 3.2). The number of interviewees (and the survey respondents) reflected the number of staff in each institution. Representativeness of the interviewees, such as male and female, local and expatriate staff was considered, for the purpose of enriching the qualitative data collection rather than for meeting the quantitative sense of population sampling.
Table 3.2  Sample for interviews and number of questionnaires distributed

<table>
<thead>
<tr>
<th>Groups</th>
<th>Number of Staff</th>
<th>Semi-structured Interview No. of interviewees</th>
<th>Survey Questionnaire No. of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrators:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VTEIs</td>
<td>15</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>DTE</td>
<td>12</td>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td>Teachers:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MTSSR</td>
<td>202</td>
<td>3</td>
<td>60</td>
</tr>
<tr>
<td>MKJB</td>
<td>103</td>
<td>3</td>
<td>40</td>
</tr>
<tr>
<td>SVNR</td>
<td>51</td>
<td>3</td>
<td>25</td>
</tr>
<tr>
<td>SVSB</td>
<td>50</td>
<td>2</td>
<td>25</td>
</tr>
<tr>
<td>PLM</td>
<td>12</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>445</td>
<td>21</td>
<td>179</td>
</tr>
</tbody>
</table>

No informant approached refused to participate in this study. Babbie (1995) says research has shown that participant response is a function of how the person is approached. On reflection therefore, the researcher concluded that the stakeholders’ interest and their subsequent agreement to participate in the interview had been influenced through their own experiences with the researcher and/or their desire and interest in making a contribution to the study. G. Anderson (1990) points out that respect and trust of participants is necessary to establish a working relationship giving the researcher license to observe and participate.

Eleven individuals in the DTE who were considered to play key roles in the quality initiatives and could provide relevant data were selected to complete the survey questionnaires. All principals and deputy principals (education and training) in the
five VTEIs were selected. 155 teachers were selected on the basis of choosing those teachers who fitted the two main criteria – being an active teacher and from any one of the five VTEIs, namely MTSSR, MKJB, SVNR, SVSB and PLM (Table 3.1). In order to accommodate local protocol, the Deputy Principals (Education and Training) selected the respondents on the same basis. In MTTSR, a Department Head selected the respondents as the Deputy Principal (Education and Training) was on leave when the arrangement was made. For the respondents from the DTE, a staff member from the Finance Section was asked to coordinate the distribution and collection of the questionnaires. Those in-charge of coordinating the distribution and collection of the questionnaires were asked not to discuss or look at the completed questionnaires. This was requested to maintain confidentiality and also to minimise bias.

This subsection has discussed the samples used in this study. The data gathering instruments used in this study will be described in the next subsection.

3.3.3 Description of data gathering instruments

In this study, the nature of the research questions, to some extent, determined the method used as well as the people selected to provide the data required. Table 3.3 outlines the research methodology matrix used in the study. This table was also created to give a full overview of the research methodology used in this study, including the research questions, and for each, the instruments, the sample involved, and the data collection strategies, that were used to address that question.
<table>
<thead>
<tr>
<th>Research questions</th>
<th>Instrument</th>
<th>Data collection strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) How do the various stakeholders understand the term quality in VTE?</td>
<td>Semi-structured interview questions and Survey questionnaire</td>
<td>21 individuals consisting of 9 administrators and 12 teachers were interviewed individually, 122 individuals completed the survey questionnaire consisting of 21 administrators and 101 teachers</td>
</tr>
<tr>
<td>(2) What purposes are perceived as significant by stakeholders in the implementation of a quality assurance system?</td>
<td>Semi-structured interview questions and Survey questionnaire</td>
<td>21 individuals consisting of 9 administrators and 12 teachers were interviewed individually, 122 individuals completed the survey questionnaire consisting of 21 administrators and 101 teachers</td>
</tr>
<tr>
<td>(3) What are the current quality assurance measures for the assessment process in the VTEIs and how are they formulated?</td>
<td>Documentary analysis, Semi-structured interview questions and Survey questionnaire</td>
<td>Content analysis of documents in the DTE and VTEIs, 21 individuals consisting of 9 administrators and 12 teachers were interviewed individually, 122 individuals completed the survey questionnaire consisting of 21 administrators and 101 teachers</td>
</tr>
<tr>
<td>(4) How do stakeholders’ currently perceive the assessment process quality assurance measures?</td>
<td>Semi-structured interview questions and Survey questionnaire</td>
<td>21 individuals consisting of 9 administrators and 12 teachers were interviewed individually, 122 individuals completed the survey questionnaire consisting of 21 administrators and 101 teachers</td>
</tr>
<tr>
<td>(5) What recommendations do the stakeholders have to improve the current quality measures?</td>
<td>Documentary analysis, Semi-structured interview questions and Survey questionnaire</td>
<td>Content analysis of documents in the DTE and VTEIs, 20 individuals consisting of 9 administrators and 11 teachers were interviewed individually, 122 individuals completed the survey questionnaire consisting of 21 administrators and 101 teachers</td>
</tr>
<tr>
<td>(6) What are the challenges faced by the DTE and its VTEIs in terms of ensuring quality of VTE?</td>
<td>Semi-structured interview questions and Survey questionnaire</td>
<td>21 individuals consisting of 9 administrators and 12 teachers were interviewed individually, 122 individuals completed the survey questionnaire consisting of 21 administrators and 101 teachers</td>
</tr>
<tr>
<td>(7) What are the issues related to human resource provision that may affect the implementation of quality assurance measures?</td>
<td>Semi-structured interview questions and Survey questionnaire</td>
<td>21 individuals consisting of 9 administrators and 12 teachers were interviewed individually, 122 individuals completed the survey questionnaire consisting of 21 administrators and 101 teachers</td>
</tr>
</tbody>
</table>
As mentioned previously, the study used both quantitative and qualitative methods to address the research questions. The methods included document and archival data analysis, interviews with informants, and a questionnaire survey. The following subsections describe each of the three data collection instruments. The researcher’s selection of the instruments will also be justified. The data collection instruments used in the study were documentary analysis, semi-structured interview and survey questionnaire and they will be discussed in turn.

**Documentary analysis**

The basic assumption behind documentary analysis, according to Cohen and Manion (1994), is that individuals or groups often reveal their beliefs, values and ideas in the documents written by them, such as files, official departmental reports, minutes of meetings, circulars and memoranda. By analysing the contents of these documentary materials, appropriate content categories and ideas could be identified which could contribute to the understanding of a particular event or a phenomenon in a social setting through the occurrence of various words, statements, concepts and images. Patton (2002) states that programme records provide a behind the scenes look at programme processes and how they came into being.

Documentary analysis was used in this study due to the various advantages as stated by Patton (2002) and Writing@CSU (2006). Among the advantages are that documents have been written with a specific audience in mind, for a specific purpose. It allows for both quantitative and qualitative analyses, and provides valuable historical insights over time through analysis of texts. It was also an unobtrusive way of understanding and analysing policies, guidelines and procedures.
formulated by the DTE and its VTEIs in relation to quality assurance of the assessment processes. Documentary analysis also provides insight into complex models of human thought and language use. In this study, it assisted in the design of the data collection instruments, both interviews and survey. It was also important as a way to corroborate evidence derived from the semi structured interview and survey.

Documents were obtained from the DTE as well as the five VTEIs. The researcher was given open access to all organisational documents and archival data. The researcher’s selection was based on two principles. One was to identify documents that adduced information to confirm or refute data generated in interviews. The second principle was to collect as many documents that were related to quality assurance initiatives of the assessment process. The documents most extensively consulted were from the DTE files. The files consulted went back to 1993 when the DTE started offering programmes under the BDTVEC. Documents and archival data included guidelines, proposals, policies, reports, meeting minutes and charts. They were collected in three ways. The first was making a request at the end of interviews for documents that informants mentioned and could provide. The second was to request documents from appropriate personnel who keep official records. The third was from the DTE library which is the internal repository for documents. Documents and archival data were analysed throughout the study period. The researcher created a data base for all data collected, including the interview transcripts, informants’ details, documents and archival data titles and summaries of their content, as well as other notes.
Semi-structured interview

In this study, face-to-face semi-structured interviews were used to elicit information from the selected interviewees to answer the research questions. The literature suggests that interviews are an important data gathering research method when it is difficult to observe the appropriate behaviours, or when endeavouring to understand implicit factors such as the participant’s beliefs, feelings and interpretations of the world around them (Merriam, 1998). Moreover, within a semi-structured interview, the participants are more ‘informants’ than respondents as ‘they are proposing their own sights into certain occurrences’ and these ‘propositions are used as the basis for further inquiry’ (Yin, 1994, p. 84).

The use of semi-structured interviews within this research study rather than having a specific, standardised, pre-determined format of a structured interview, or no standardised format at all of an open-ended interview was deliberate. It was expected that in utilising a limited number of specific guiding questions for some parts of the interview, the content would focus on the crucial research issues. This was to ensure that relevant and similar information was sought from all participants regarding their beliefs and personal perceptions about these issues. Another reason for using semi-structured interviews in this study was that while ensuring that the direction of the conversation was controlled to keep a relevant focus, it was also open and natural in its approach. These issues were mentioned by Burns (2000). More specifically, it is posited that the advantages associated with using semi-structured interviews include; a greater length of time is spent with a participant than in structured interviews, which helps to build trust and rapport with the researcher, the participant’s perspective is provided rather than the imposed perspective of the
researcher, the participant uses language they are comfortable with rather than trying to understand and accommodate the concepts of the study, and the participant has equal status with the researcher in the dialogue rather than feeling like the ‘subject’ of a study.

Specifically, the use of semi-structured interviews in this study provided a twofold benefit. First, the data from the interviews were used as the guide in designing the survey questionnaire as well as enhancing its relevance. Secondly, the interviews enabled a closer investigation of the self-knowledge of particular respondents so that each of the research questions could be examined from the more personalised and descriptive data obtained which was not possible through the survey questionnaires.

The approach to these interviews took the form of a conversation that combined the social interaction between the participants and the researcher with the specificity of the guiding questions. This was done, as recommended by Patton (2002), in order to more fully clarify the hidden, unknown, or taken for granted aspects of the research issues. Guiding questions are not specific questions to be answered. Rather, they are those which suggest themselves at the commencement of the study as being the most productive guides to generate data pertinent to the central area of interest. The interview format used in this study followed the recommendation by Burns (1997) and Merriam (1998) which allows enough freedom for the participants to progressively explain their situation from their own perspectives. This technique also enabled the researcher to vary his style of interviewing mode from open-ended interview to the structured interview depending on the circumstances. This method was chosen by the researcher because the researcher knew many of the interviewees
and it also provided an environment that allowed them to express their views in more detail and with freedom.

The emotional state of the interviewee at the time of the interview was also addressed in this study as it could affect the interview data. The gathering of high quality information during interviews, according to Patton (2002) is often affected by respondents who are uncooperative, paranoid, sensitive, easily embarrassed, aggressive, timid or hostile. According to him, misrepresentation and distortion of interview data may result from personal bias, anger, anxiety, politics, and a simple lack of awareness. This potential limitation was minimised in this study by the established rapport between most of the respondents and the researcher. For those respondents whom the researcher first met during the interview, considerable attention was given to establishing rapport. This was enhanced by having a short informal conversation prior to the more formal interview.

Another critical issue is the comparative benefit for the researcher of knowing or not knowing the interview participants. It is proposed that if both parties know each other, there may be greater rapport and more willingness to disclose information. However, there may be greater safety for the participants if they are not known so they can disclose in safety and walk away. This issue is contentious for research writers, as some suggest that the interviewer must assume a ‘neutral role’ and others suggest that they follow a ‘standard form’. The ‘standard’ argument infers that the respondents will respond under the same conditions, thereby eliminating bias. As recommended by Mertens (1998), in this study, the researcher invested his own personal identity in the research relationship by responding to participants’ questions, sharing knowledge and experience, and giving support when asked.
Survey questionnaire

The third data collection strategy used in this study was the survey questionnaire. Each of the data collection strategies were complementary in nature, with each being designed to achieve the outcomes to answer the research questions. In this study, the use of a survey as recommended by Borg and Gall (1989) and de Vaus (1991), allowed the researcher to describe the characteristics of groups (sets of data), relationships between groups, and to identify possible causes for phenomena by comparing cases within the data. In this study, the survey was also employed to further explore phenomena that arose in the interview stage and those that were not covered during the interviews.

In exploring the possibility of using a survey questionnaire in this study, the researcher considered a number of factors. The survey or questionnaire is the most commonly used descriptive method in educational research. Typically, according to Cohen and Manion (1994), they gather data at a particular point in time to ‘identify standards which existing conditions can be compared’ (p. 83). This data collection technique is used to measure variables in quantitative research, is usually used as a distinctive technique, is a process of asking many people the same questions and examining the range of their answers. The survey is considered by many authors (Babbie, 1995; Berdie & Anderson, 1974; Borg & Gall, 1989; Hyman, 1991) to be a most appropriate data collection strategy to use when a large amount of information is needed from a larger group of respondents than is possible when using other designs. According to them, the survey is also an excellent means of generalising findings obtained from a small sample to a larger population, but they do rely on self-reports of knowledge, attitudes, and behaviours.
Various support and criticisms for the use of a survey were also considered prior to its use in this study and this included the four advantages attached to the use of surveys as highlighted by Babbie (1995). These include: i) the use of a carefully selected survey combined with a standardised questionnaire which provides the possibility of making ‘refined descriptive assertions’ (p. 273), ii) very large samples are feasible, iii) the opportunity to ask many questions on a given topic provides the researcher with considerable flexibility in his or her analysis, and iv) as the same questions are being asked of all subjects, the results ‘have an important strength in regard to measurement’ (p. 273).

In response to criticisms that surveys are limited to description only, Borg and Gall’s (1989) claim that survey research actually uses a variety of instruments and methods ‘to study relationships, effects of treatment, longitudinal changes, and comparisons between groups’ (p. 417) were noted by the researcher. Four further disadvantages attached to the use of survey research as mentioned by Babbie (1995) were also considered. They are: i) the need to standardise the survey items ‘often seems to result in the fitting of round pegs into square holes’ (p. 273) as some or many of the questions may be minimally relevant or appropriate to the individual subject’s experiences or circumstances, ii) survey research can seldom develop the ‘feel’ for the total life context of the subjects, iii) surveys typically require the initial design to remain unchanged whereas field researchers can often become aware of new variables and adapt their study design to accommodate these new variables, iv) surveys are subject to a degree of artificiality which can affect validity, and v) few people think of issues in terms of strongly agreeing, agreeing, disagreeing or strongly disagreeing and, as a result, survey responses must be viewed as
‘approximate indicators of what we have in mind initially in framing the questions’ (p. 274).

In this study, the documentary analysis, the interviews and the questionnaire survey, should be viewed as complementary in nature. While providing new and more specific data to those already collected, each stage of the study served to inform and validate the others.

3.3.4 The development and implementation of data collection instruments

This subsection discusses methodological issues which arose during the design and development of the two data collection instruments, semi-structured interviews and survey questionnaire. The implementation of both instruments is also discussed.

Semi-structured interviews

Using the information from the literature as previously discussed in Chapter Two, the documentary analysis and from the researcher’s own experience, the interview questionnaire was designed to explore the seven research questions. This interview guide helped to make interviewing a number of different people more systematic and comprehensive by delimiting in advance the issues to be explored. The guide also provided a framework for exploring, probing and questioning which clarified and illuminated the self-knowledge of the participants (Patton, 2002). The intention was to keep the interviews more conversational and situational so as to diminish any sense of personal and professional threat to the participating participants (Stake, 1995). Rather than feeling that they were being evaluated and judged, the researcher
needed to build a trusting, supportive, and collegial relationship to ensure that information supplied was as rich and fulsome as possible (O’Donoghue & Dimmock, 1998).

Different interview guides were prepared for each of the two groups of stakeholders, the administrators and the teachers. The interviews were conducted in English rather than in Malay language. It was anticipated that interviewees would have no problem in understanding and responding to it. The administrators and teachers were asked a slightly different set of questions according to their position and role. However, both groups were asked questions relating to the six common themes of the study and these will be discussed in turn (refer to copies of data collection instrument in Appendix G and H).

**Section A: Demographic data**

In this section, interviewees were asked to supply demographic information. Questions were initially fairly general. This was to allow the researcher and interviewees time to relax and to get to know each other so that responses would be more honest and open. These questions were designed to ask interviewees factual questions on a familiar topic. This included the number of years the interviewee’s had been teaching, the department they were in, the programme and level of students they taught, and the committees they were involved with.

**Section B - Quality and quality assurance in VTE**

This section relates to the interviewees’ understanding of the term quality and the purpose for implementing a quality assurance system in VTE. This section required
the interviewees to rank five statements indicating the order in which the statements represented their own view of quality, for example, 1 for the statement that best described their view and 5 that least described their own view of quality.

The statements included:

- exceptional – uncompromising standards, absolute benchmark and high achievement,
- consistency – right every time with no errors,
- fit for purpose – successfully meet or serves the purpose of the users,
- value for money – a return of investment, using and managing resources efficiently, and
- transformative – educational experience that enhances the participants’ knowledge, skills and abilities.

It also required the respondents to rank five statements regarding the VTEIs’ purpose for implementing a quality assurance system. These items included improvement, accountability, control, resources allocation and public information.

Section C – Description of current practice

The interviewees were required to describe the current quality assurance practice for the assessment process in their department and institution and the various issues related to it.
Section D - The proposed ‘Assessment process and quality assurance’ guidelines

The interviewees were asked questions related to the proposed guidelines, and their strengths and weaknesses. They were also asked about the type of monitoring they perceive that can ensure the quality of the assessment process.

Section E - The external moderators

Questions asked in this section related to the outcomes of the external moderators visit, the strengths and weaknesses in using the external moderation system and issues related to the use of local moderators. The interviewees were also asked their opinion about the comments made by external moderators on the standard of assessment between the various VTEIs and between the departments in their VTEI.

Section F - The issues and challenges

The questions in this section related to the issues or challenges facing the VTEIs in term of ensuring the quality of the assessment process. The interviewees were also required to indicate from a list of ten issues printed on an A4 size white piece of cardboard, which issue/s they thought were current and future challenges for VTE in Brunei. They were also asked whether they thought action has been taken by the VTEIs and the DTE to address the issue/s they identified.

Section G – Staff development

The interviewees were asked about issues related to staff competency, preparation needed by teachers, and the processes needed to be improved or instituted in the VTEIs and the DTE for effective implementation of quality assurance measures.
Section H – Interviewee comments

The interviewees were also asked if they had any issues they wanted to raise or if they had any comments to make. They were also asked to comment on related issues they thought were relevant and not directly covered during the interview and were asked to expand on any of their responses regarding quality issues in their organisation. This was considered an important component of the interview as it could provide valuable data which may not have been obtained from the interview. Interviewees may also have liked to have had the opportunity to contribute to something of importance. Some themes were pursued in much more detail during the interviews with teachers due to the relevancy of their role to the theme, for example their description of the current assessment process.

For the initial draft of the interview, both open and closed ended questions were devised. Questions were discussed with the researcher’s supervisors and were piloted with two Bruneian teachers studying in Perth, Australia and two VTE teachers in Brunei. Using the data from the pilot study and the feedback from the supervisors, the final draft of the interview was prepared. The purpose of the pilot study was also to refine the researcher’s technique of asking questions, the researcher’s way of relating with the interviewees and the researcher’s responses to the interviewees’ answers and comments.

The interviews were conducted between September and October 2005. An interview schedule was prepared after obtaining consent from the selected interviewees. The consent form is attached as Appendix E. Before the interview, interviewees were briefed on the purpose of the study and also the relevance and significance of the
research for VTE in Brunei. They were also informed of the confidentiality of the interview data and told they could withdraw from the project at any stage. Each interview began with interviewees being asked to describe their background and their job. Questions were initially fairly general and designed to be easy to answer. This was to allow the researcher and interviewees time to relax and in a few cases, get to know each other so that responses would be more honest and open. Questions did not follow exactly the way they were outlined in the guide. Also, questions that were not included in the guide were asked in order to explore a particular issue brought up during the interview. Interviews were conducted with a single respondent on each occasion. Interviews were each one to one and half-hours in length. The researcher interviewed 21 informants in total.

With reference to the manner of conducting these interviews, the researcher also took note of the literature that recommended audio-taping and transcribing each interview. Audio-taping the interviews, as recommended by Hook (1990), allowed the participants and the researcher to assume a more relaxed mode, as the constant taking of notes would have been distracting. It also allowed for accurate noting of important quotations from the interviewees as recommended by Patton (2002) and Burns (1997). All interviews were tape-recorded except for one interview where copious handwritten notes were made as the interviewee declined to be tape recorded. No direct quotations by this interviewee were used as the researcher felt that the handwritten notes did not reflect accurately what was being said by this interviewee.

When conducting the interviews, the researcher, as recommended by Cohen, Manion and Morrison (2000) used the same format and sequence of words and avoided
leading questions to ensure a high degree of reliability. The researcher also strictly conformed to the guidelines established in order to maximise reliability and reduce any bias. Sources of bias were minimised in order to achieve greater validity, as recommended by Cohen et al. (2000). These include: the attitudes, opinions and expectations of the interviewer, a tendency for the interviewer to seek answers that support his/her preconceived notion, misperceptions of the interviewer regarding what the interviewee is saying and misunderstandings of the interviewee regarding what is being asked.

The researcher kept a journal to record his interviewees’ as well as his thoughts and experiences with the interviewees. Interesting data and themes were noted so these issues could be brought up at the next interview. Interview data was edited during the transcription process in order to either explicate the main phenomena deemed to be significant, or to identify aspects that needed further discussion. This essential process could not have occurred without audio-taping each interview as it necessitated a constant interchange between the transcribed notes and sections of the recorded data on the tape. Moreover, audio-taping the interviews allowed for multiple replays of the tapes. Thus, the researcher was able to re-live the data and to clarify any uncertainties within the process of transcription as recommended by Patton (2002) and Merriam (1998).

**Survey Questionnaire**

In this part of subsection 3.3.4, the development and implementation of the survey questionnaire was discussed. A comprehensive review of the literature revealed that there were no existing instruments which were satisfactory to address the research
questions. Most existing instruments only covered a small part of the research questions and were not comprehensive enough to be useful for this study. Acknowledging that ‘to a large extent the success of a study depends on the quality of the data collection methods chosen’ (Beanland, Schneider, LoBionda-Wood & Haber, 1999), the researcher therefore designed and developed a self-administered and context specific 77 item questionnaire with guidance from the findings from the documentary analysis, semi-structured interviews and literature review. The researcher followed the recommendations by Lydeard (1991) who listed a number of steps necessary for developing a questionnaire to be used as a research tool and they are as follows: 1) define the area of investigation, 2) formulate the questions, 3) choose the sample and maximise the response rate, 4) pilot and test for validity and reliability, and 5) recognise sources of error. Initially, the area of investigation was defined by reviewing the relevant literature. The questions were formulated from a number of sources, including the literature review and data obtained from semi-structured interviews. This was also to ensure the content validity of the questionnaire.

The questionnaire comprised the following items: 1) covering letter, 2) instructions to respondents, 3) closed and open ended questions and 4) demographic items. Each of these elements will be discussed. The results of the pilot test undertaken to establish the validity and reliability of the questionnaire are also described. Refer to a copy of the instrument in Appendix I.

A covering letter accompanied the questionnaire outlining the purpose and significance of the study, the approximate time it should take to complete the questionnaire, the confidentiality of information and how and when to return the
questionnaire (Appendix I). In writing a covering letter, the researcher took into account the importance of ensuring that respondents understood the purpose of the study and believed the study was relevant to themselves as VTE staff. These strategies were employed to try and minimise respondents’ negative states including fatigue, boredom, and discouragement (Kervin, 1992). The survey questionnaire was divided into six sections. These sections will be discussed in turn.

Section A – Managing quality assurance initiatives for the assessment process in VTE

The first section of the questionnaire examined respondents’ perceptions about the current quality assurance arrangement for the assessment process. The researcher believed that it was advantageous to place this topic in the first section because this topic was familiar to the respondents and consequently may have increased the response rate and reduced measurement error. This section was deliberately designed to ask participants factual questions on a familiar topic. It was anticipated that this would make them feel comfortable when first reading the questionnaire and that they would view the questions as relevant to their own professional practice, and thus be motivated to answer the questions. To further reduce memory induced measurement error, specific questions on quality assurance initiatives such as organisation and management, policy, the implementation process, the monitoring and review process, physical and human resources, stakeholders’ involvement, initiatives in the DTE and professional development were asked.

The respondents were asked to choose one of the following three response categories: Agree, Unsure or Disagree for 31 written statements. They had to choose
which response best represented their own perception and/or opinion related to the management of quality assurance measures for the assessment process in VTE. These statements were categorised using seven headings. These included: Organisation and management, quality assurance implementation process, quality assurance monitoring and the reviewing process, physical and human resources, stakeholders’ involvement in quality assurance initiatives, assessment process quality assurance measures in the DTE and professional development for teachers. The full instrument is in Appendix I.

When considering the possible structure of this section of the questionnaire, the use of fixed alternative statements offered a major advantage to the researcher. Statements that are standardised with fixed alternatives meant that the responses of the subjects could be compared. For a response category, the three categories (Agree, Not Sure and Disagree) were considered the most appropriate response scale because the researcher wished to: 1) obtain the opinion/attitude of the subjects, and 2) measure different dimensions of particular concepts. There has been controversy over the use of the ‘Not Sure’ or neutral category, which allows respondents to avoid making a clear choice of the positive and negative statements, and the researchers who use the forced choice version consider an item left blank as a response of uncertainty. However, the researcher decided to include the ‘Not Sure’ option because it is difficult to interpret the data if a large number of respondents leave an item blank. The ‘Not Sure’ option was also included after taking into account respondents’ feedback during the pilot study. The pilot survey respondents suggested the inclusion of a ‘Not Sure’ category as a way to indicate whether the respondents were aware of the current quality assurance measures or not.
When designing this section of the questionnaire, the researcher made every attempt to avoid response set bias which can be a source of measurement error in questionnaires. Response set bias, according to Shi (1997) is ‘the tendency for respondents to be very agreeable or stick to a particular pattern of response’ (p. 253).

Section B – Defining quality in VTE and the significance of quality assurance measures

The topic of quality and quality assurance was put in the second section of the questionnaire because as demonstrated in the literature review in Chapter Two, it was quite difficult to define the term quality. It was felt that to put it at the beginning of the questionnaire could be quite off putting to the respondents. Using a similar format to the semi-structured interview, this section required the respondents to rank five statements (quality as exceptional, quality as consistency, quality as fit for purpose, quality as value for money, and quality as transformative) by indicating the order in which the statements represent their own view of quality, for example, 1 for the statement that best described their own view and 5 for the statement that least described their own view of quality. These statements reflected the different definitions of quality as reviewed in the literature (refer to Chapter Two, Section 2.2.1).

The questionnaire also required the respondents to rank five statements indicating their personal view about the VTEIs’ purpose for implementing a quality assurance system. These statements included improvement, accountability, control, resource allocation and public information and reflected the different purposes for implementing a quality assurance system as reviewed in the literature (refer Chapter
Two, Section 2.2.4). This section also contained three open-ended questions that required the respondents to state other definitions of quality and/or purpose/s of implementing a quality assurance system which were not listed in the questionnaire.

**Section C – The ‘Assessment process and quality assurance’ guidelines**

The aim of this section is to address issues related to the ‘Assessment process and quality assurance’ guidelines, which were produced by the Secretariat Section of the DTE and implemented in late October 2005. This section also addressed issues related to overseas external moderators.

Section C was divided into two subsections, verification and overseas external moderators. In terms of a response format, this section contained seven open-ended questions and seven closed-ended questions. Each open-ended question had a response set of two to three blank lines. Using open-ended questions on a familiar topic would provide greater depth than closed ended questions, thereby eliciting extensive responses from subjects. The responses can ‘provide a rich context for the research description and support and expand on summary findings’ (Shi, 1997, p. 257). The researcher was also aware that open-ended questions can cause low response and completion rates because they require greater effort and time on the part of the respondent, thus the number of open-ended questions was kept to a minimum.

**Section D - Quality and quality assurance: Current and future challenges**

Section D contained ten challenges, identified during the semi structured interviews conducted before the survey, which may affect VTEIs efforts in ensuring quality of
VTE provision. Each was presented with three sets of fixed alternative statements. Respondents were asked to choose one of the response categories, Yes or No, for each of the three sets of statements. These statements were whether the respondents perceived the listed statements as an issue or challenge confronting their institution, whether action had been taken by their institution to address the issues/challenges and whether they perceived that the DTE had taken action to assist VTEIs to address these issues/challenges.

Section E – Demographic Data

In this final section, participants were asked to supply demographic information. The data were collected to describe the study sample and to examine relationships between the subjects’ characteristics. The demographic items included whether the respondents were local or expatriate staff, their years of teaching or years in their current post and the committee/s they were on. However, in the questionnaire for the administrators, only two items were included, the length of time they were in their current job, and the committees they were involved in. The demographic variables were collected using closed-ended questions. The questions on personal and demographic data were purposefully put towards the end of the questionnaire rather than in Section A to avoid a dull beginning and to decrease participant intimidation.

The front sheet of the questionnaire was colour coded for easy identification, to indicate which institution the respondent came from, as well as to identify whether it came from an administrator or teacher.
Measures to improve response rate in the data collection process as identified by Shi (1997) were also employed. They included a cover letter with the questionnaire and method of questionnaire return. Several strategies were employed in this study to reduce measurement error and non-response. First, the questionnaire was kept to a minimum length of nine pages and it was divided into five logical sections with each section clearly labelled. Second, repetitious questions were avoided and factual questions in Section A on quality assurance initiatives were kept to a minimum. Because response format changed with each section, respondents were provided with instructions on how to proceed with answering the specific section. At the beginning of each section, specific instructions were given for a number of questions, for example, the questions which asked the respondents to rank the statements and questions where more than one response was possible. The instructions were carefully tested by the pilot subjects. During the pilot study, the questions and statements were also examined and tested for appropriateness, content, wording, and order. Third, adequate space was provided for answers and comments for the open ended questions.

Pilot study

As mentioned earlier, since the questionnaire was designed specifically for the purpose of this study it was imperative to pilot test it in terms of clarity of questions and statements, choice of words, missing items, effectiveness of instructions, and completeness of response sets, length and amount of time it would take to complete. The purpose of the pilot analysis was to test the data collection instrument for face validity and in particular, to check that the questions elicited appropriate responses (Beanland et al., 1999).
A pilot study of the questionnaire was conducted using a purposive sample of nine teaching staff currently employed in one of the VTEIs. This was carried out during the questionnaire design stage to reveal early problems, after being checked by the researcher’s two supervisors. A cover letter outlining the importance of the pilot questionnaire was attached. The participants in the pilot study were chosen because they had similar background and knowledge to the target population about the issues being investigated. They did not form part of the group to be surveyed. Verbal consent to participate in the pilot study was obtained from the respondents.

Respondents were asked to note how long it took to complete the questionnaire, if they felt uncomfortable answering any questions and if there were any ambiguous or difficult questions. They were also given the opportunity to make comments regarding the content of the questionnaire. Of the nine questionnaires distributed, all were completed and returned. A two hour meeting session with the nine respondents was organised in which their feedback was discussed.

The outcomes of the pilot study and the feedback from the meeting session indicated the need for some changes to be made. The four main concerns were: 1) failure to understand some questions and statements, 2) failure to understand some of the given instructions, 3) inappropriate choice of words, and 4) the absence of a ‘Not Sure’ option, which respondents believed would not give a true indication of respondents’ opinions. They believed respondents would be forced to choose between ‘Agree’ and ‘Disagree’ when they actually did not have any knowledge about the statements. This could have occurred in instances where there was a breakdown in communication between the DTE and VTEIs as well as between administrators and teachers in the institution. It could also have happened where
respondents had no involvement in some of the processes mentioned in the questionnaire items. Minor alterations in wording were made to increase the clarity of several of the questions. The results of the pilot study have not been included in the final results. As the changes were editorial in nature and did not impact on the integrity of the questionnaire, the researcher took C. Anderson’s (1990) recommendation not to subject the questionnaire to a second pilot.

Once the sampling frame was obtained, questionnaires were distributed on the 16th January 2006 through the Deputy Principal (Education and Training) in all the VTEIs except MTSSR. During the arrangement process, the Deputy Principal of MTSSR was on leave so the distribution of papers was assigned to a Department Head. The participants were given ten days to return the completed questionnaire to their Deputy Principal (Education & training) or the Department Head, in the case of MTSSR. For the respondents from the DTE, a staff member from the Finance Section was asked to coordinate the distribution and collection of the questionnaire. A total of 179 questionnaires were distributed. A follow up of non-responses or late responses was conducted by the assigned person. The collected survey forms were later sent to the researcher by courier. The number of responses from the questionnaire distribution was 122 which yielded a response rate of 68.2%. Table 3.4 shows the breakdown of the questionnaire distribution as well as the return rate.
Table 3.4  The number of target and achieved samples for the questionnaire survey

<table>
<thead>
<tr>
<th>Group of Respondents</th>
<th>Target</th>
<th>Achieved</th>
<th>Return Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrators</td>
<td>24</td>
<td>21</td>
<td>91.3</td>
</tr>
<tr>
<td>Teachers (MTSSR)</td>
<td>60</td>
<td>23</td>
<td>38.3</td>
</tr>
<tr>
<td>Teachers (MKJB)</td>
<td>40</td>
<td>35</td>
<td>87.5</td>
</tr>
<tr>
<td>Teachers (SVNR)</td>
<td>25</td>
<td>15</td>
<td>60.0</td>
</tr>
<tr>
<td>Teachers (SVSB)</td>
<td>25</td>
<td>25</td>
<td>100.0</td>
</tr>
<tr>
<td>Teachers (PLM)</td>
<td>5</td>
<td>3</td>
<td>60.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>179</strong></td>
<td><strong>122</strong></td>
<td><strong>68.2</strong></td>
</tr>
</tbody>
</table>

The lower return rate of MTSSR (38.3%) was disappointing. Follow up attempts were made on two occasions by the Department Head in-charge of distributing the questionnaire, informing Heads of Department to remind their staff to return the questionnaires; during the Heads of Department meeting and by calling the respective Head of Department at his/her office. Reasons for the low response rate could be attributed to the timing of the survey questionnaire distribution which coincided with various institutional activities and functions, events which did not happen at the other institutions. Activities included the organisation of the 2006 National Skills Competition, where MTSSR was the venue for three categories of the competition and the preparation of their students for participation in the competitions held in the other four VTEIs. These competitions occurred concurrently during that period. The situation was further aggravated by orientation week for students in the 2006 intake.
### 3.3.5 The fieldwork

The fieldwork was undertaken in Brunei in five different periods as shown in Table 3.5.

<table>
<thead>
<tr>
<th>Periods</th>
<th>Activities</th>
<th>Purposes</th>
</tr>
</thead>
<tbody>
<tr>
<td>February 2005</td>
<td>Documentary analysis</td>
<td>Read files and other related documents available in the DTE to obtain data to address research questions (1), (4) and (6) and to provide input to the development of chapters (1) and (2) of the dissertation.</td>
</tr>
<tr>
<td>September – October 2005</td>
<td>Documentary analysis and Semi-structured interviews</td>
<td>Read files and other related documents available in the DTE to obtain data to address research questions (1), (4) and (6) and to provide input to the development of chapters (1) and (2) of the dissertation, To obtain data to address research questions (1) to (7)</td>
</tr>
<tr>
<td>January – February 2006</td>
<td>Survey questionnaire</td>
<td>To administer survey questionnaire to obtain data to address research questions (1) to (7)</td>
</tr>
<tr>
<td>April – May 2006</td>
<td>Documentary analysis</td>
<td>Read files and other related documents available in the DTE to obtain data to address research questions (1), (4) and (6) and to provide input to the development of chapters (1) and (2) of the dissertation, To verify the interview transcripts with the interviewees, To obtain data to address research questions (1) to (7)</td>
</tr>
<tr>
<td>July - August 2006</td>
<td>Documentary analysis</td>
<td>To obtain data to address research questions (1), (4) and (6) and to provide input to the development of chapters (1) and (2) of the dissertation.</td>
</tr>
</tbody>
</table>
3.4 Data analysis and interpretation procedures

While it was presumed that the combined interview process and survey questionnaire were well suited for exploring the perceptions of stakeholders about the quality assurance of the assessment process in VTE in Brunei, it was also recognised that these methods would produce large amounts of data, both relevant and important as well as unnecessary or irrelevant data, but this distinction was not immediately obvious during the interviews. This section describes the procedure used in data analysis and data interpretation for both data collection techniques.

The analysis of the interview data began with the notes from the first interview that was conducted. Soon after leaving the interview, the researcher read and re-read the notes he had written and took notice of small patterns that he thought he detected in the way the interviewee answered the questions. The researcher then recorded items about what he had observed and identified elements of the interviewee actions to look for during the next interviews. This was carried out in view of Merriam’s (1998, p. 162) recommendation that ‘the right way to analyse data in a qualitative study is to do it simultaneously with data collection’. At the outset of the qualitative stage of the study, the researcher knows what the problem is but doesn’t know what will be discovered, what to concentrate on and what the final analysis will be. In agreeing with Guba and Lincoln’s (1989) view, the researcher acknowledged that the process becomes more directed and the analysis becomes more structured and definite as each sample datum is examined.
All audio-taped interviews were initially transcribed ‘word-for-word’ with any emotion exhibited by the respondent with the dialogue (e.g. laughter, sarcasm or hesitance). The analysis and interpretation stage of the research was conducted in four stages. The first involved grouping together each interviewee’s comments according to the research questions. As the coding, groupings and trends started to emerge, direct and relevant quotes were copied into another Word document under themes. All comments and quotes had a string of identifier codes attached to ensure that they could be accurately traced back to the interviewee. The second level of analysis involved bringing together the responses from all interviewees within a single category according to the research questions. This level of analysis enabled the researcher to see the repetitive statement or phrases given by the different interviewees. The third level of analysis involved the adding and/or cross-checking with data from other groups of interviewees, both administrators and teachers. Within level two and three of the analysis, further coding was carried out in which contents were selected and organised into sub-categories (Cohen & Manion, 1994). The fourth level of analysis involved adding and/or crosschecking with data obtained from other sources such as documentary analysis and survey questionnaires. This level of analysis ascertained the validity of the data collected.

For the quantitative analysis, the preparation stage involved devising tables and forms so that the data could provide a fair summary of what had been studied and could be analysed readily to answer the research questions. Simple descriptive statistics such as total, percentage and a measure of central tendency such as the arithmetic mean were calculated. In this study, four steps were applied to analyse the data: adding all scores of each scale for groups of respondents (administrators and
teachers), adding all scores of each scale for groups of respondents (teachers from each of the five VTEIs), and averaging each scale for groups of respondents (administrators and teachers), and averaging each scale for groups of respondents (teachers from each of the five VTEIs). All these steps were carried out using Microsoft excel. Thematic analysis was conducted with the open-ended questions. This consisted of transcribing each of the responses onto one document, identifying repeated and unique views, classifying them under broad categories, then sub categories. Similar to the interview data, the process included consistently referencing the data with the respondents’ code to ensure correct identification of the responses.

Once the data had been collected and analysed using the above processes, issues associated with the storage were addressed. Within the context of this study, the labelling of concepts, and the creation of categories of knowledge, which underpin the concepts, was a complex process that required an orderly and efficient system for data coding, storage and retrieval (Corbin, 1986). Through the consistent and rigorous application of coding protocols and data storage methods, the researcher was able to ensure that all data was accessible and readily and accurately retrievable for coding and concept reconstruction. In this particular study, all data were stored in the form of written documents, computer files, and audiotapes. In order to achieve this, audiotapes of each interview were transcribed, coded and filed. A list of conceptual labels and categories that were generated were filed separately from the data. This comprehensive level of filing and storage of all data associated with this study ensured that it would be readily available for others to review and examine.
Having described the procedures for data analysis and data interpretation, the next section will describe the quality criteria used in this study.

3.5 Quality criteria

In order to determine trustworthiness of an inquiry, Lincoln and Guba (1985) recommend four criteria; credibility, transferability, dependability and confirmability that collectively can be combined to achieve this purpose. The credibility criteria involves establishing that the results of qualitative research are credible or believable from the perspective of the participant in the research. Transferability refers to the degree to which the results of qualitative research can be generalised or transferred to other contexts or settings. The idea of dependability, on the other hand, emphasises the need for the researcher to account for the ever-changing context within which research occurs. The researcher is responsible for describing the changes that occur in the setting and how these changes affect the way the researcher approached the study, and confirmability refers to the degree to which the results could be confirmed or corroborated by others.

In this study, the researcher used several strategies to draw more accurate and credible conclusions. These strategies were based on the recommendations by Baxter, Eyles and Willms (1992), Cohen et al. (2000), Dey (1993), Guba and Lincoln (1989), Lincoln and Guba (1985), Marshall and Rossman (1995), Merriam (1998) and Mertens (1998). These strategies included:
1. As recommended by Marshall and Rossman (1995), the researcher set defined parameters. This study has clearly defined boundaries both in subject and setting. The subject, quality assurance of the assessment process is clearly discussed in the literature. The setting of the study was also defined, VTE in Brunei. External validity or the degree to which the findings can be generalised to all settings is clearly limited. Nevertheless, the findings can give indications of possibilities for the stakeholders to explore.

2. The researcher also used multiple data sources and methods to enhance the understanding of the problems, to clarify meaning and to verify the repeatability of an interpretation (Merriam, 1998; Stake, 2005). The two distinct methods, interview and questionnaire survey, were used to further explore the topic and add breadth. The questionnaires were developed from key themes identified from the interviews. This made it possible to expand and/or confirm perspectives from the stakeholders’ viewpoint, resulting in a more holistic perspective of the topic investigated.

3. Several issues raised by Baxter et al. (1992) on ways to enhance what is learned from the research process such as the quality of the interaction between researchers and informants, the researcher’s ability to interpret what he or she has been told and what is observed, and the researcher’s own value system were also considered in the conduct of the study. Guba and Lincoln (1989) and Merriam (1998) recommend several techniques for enhancing correspondence between the participants’ responses to the perceived social construct. This was achieved by employing certain strategies during the research process, such as emphasising rapport between the researcher and the participants, and using data collection techniques such as tape recording which is less threatening than
video. Audio-taping of interviews also enhances dependability. These recommendations were taken into account during the conduct of the study.

4. Qualitative research should be transferable, which equates with validity, according to Lincoln and Guba (1985). That is, the research must be analysed so that results can be generalised to other situations. The transferability criterion in this study is satisfied by using ‘thick description’ (Lincoln and Guba, 1985, p. 328). Merriam (1998) defines thick description as ‘the complete, literal description of the incident or entity being investigated’ (p. 29 – 30). By providing a thick description of a particular situation in this study, the events and situation are thus allowed to speak for themselves (Cohen et al., 2000) and the reader can make decisions about the degree to which the findings in this study can be transferred to another context.

5. Another critical issue taken into consideration by the researcher was the instability of data. Guba and Lincoln (1989) suggest that instability of data may occur over time ‘because inquirers are bored, are exhausted, or under considerable psychological stress from the intensity of the process’ (p. 242). In this regard, dependability of this study was enhanced by having only one researcher collect data.

6. A researcher must be able to track all data to its source. The use of specific software, designed to manage data generated from the study was used. It was an ideal way to ensure that the findings are confirmed.

7. In this study, the decisions about the selection of appropriate research methods, the sampling and recruitment of subjects, the analysis of data and the way the data are presented have been considered as important elements in establishing validity. This was achieved through clearly explaining the researcher’s status,
position, assumption and theory behind the study, the researcher’s relationship to the participants, the basis for selecting participants and a description of them, the context from which data were collected, analysed and categorised and providing a theoretical and analytical ‘audit trail’ (Dey, 1993) by describing how decisions were made through the inquiry.

8. The researcher acknowledges that the work is incomplete and therefore does not claim to represent the complete picture. In achieving this, the context of the research was referred to in the results and recommendations. For example, the research results show linkage to positive action within a community, empathise with the voices that are accessed, understand the state of others, and show a sense of trust and mutuality with the research (Mertens, 1998).

This section discussed the quality criteria employed in this study. The next section will look at the ethical considerations made for the study.

3.6 Ethical considerations

In this section, the ethical considerations incorporated in the study are discussed. In all study, ethical dilemmas are likely to emerge with regard to the collection of data, the dissemination of findings and in particular, in the relationship between the researcher and each of the participants (Merriam, 1989). The standard data collection technique of interviewing presented its own ethical dilemma. The researcher had to remember always that he was a guest in the private spaces of the interviewees (Stake, 2005). Even though the data collected for this dissertation were not politically, socially or physically sensitive in nature, ethical issues were
considered important. As Stake (2005, p. 495) suggests the researchers’ ‘manners should be good and their code of ethics strict’ as the value of the best research is not likely to outweigh injury to a person exposed. Inappropriate research actions can make interviewees feel that their privacy has been invaded, or they may be embarrassed by certain questions, or they may divulge things that they never intended to reveal (Merriam, 1998). While most interviewees enjoyed sharing their knowledge, and appreciated the enhancement of their own understandings as a result, the researcher always remembered that less than positive thoughts may surface in an interview, even if the topic appeared routine or benign. The researcher acknowledged that there may be instances when ethical dilemmas must be solved situationally and spontaneously (Punch, 1994).

All participants, both administrators and teachers, were informed of the purpose, methods and time frame of the study as it is unethical in terms of human relationships to conduct an investigation when the subjects are unaware of the real purpose (Burns, 2000). In the case of interviews, the researcher always remembered the point made by Patton (2002) that ‘the purpose of a research interview is first and foremost to gather data, not change people’ (p. 354) and that the interviewee is not ‘a cold slab of granite – unresponsive to the human issues, including great suffering and pain, which may unfold during an interview’ (p. 354). The interviewees in this study were told that they were to participate without feeling coerced and were free to withdraw from the participation at any time (Burns, 2000). A similarly worded introductory letter and consent form supported these assurances. This was done in view of Burns (2000) and Cohen’s et al. (2000) assertion that the principle of
informed consent is the most important ethical agenda in doing research which also involves the right to participate and the right to refuse to take part.

In this study, the personal data of the interviewees have been presented in an anonymous way. Participants’ right to privacy was also made through the promise of confidentiality. This follows the advice from Cohen et al. (2000) that anonymity ensures that information provided by participants does not reveal their identity. A number of techniques were included to ensure anonymity and confidentiality of the findings. The use of codes instead of the participants’ real names, ensure people other than the researcher cannot identify the participants from the information presented in this dissertation. The names and locations of the VTEIs were also concealed.

For the survey questionnaire, respondents were reminded not to write their name on the questionnaire. In order to reduce the possibility of losing confidentiality through the involvement of many interviewers (Patton, 2002), data in this study were collected only by the researcher. The researcher also analysed the survey questionnaires. However, it has not been possible to guarantee total confidentiality nor anonymity of participants or information gathered as a result of this research project. While interviewees and institution names are discussed in the final report using codes in an attempt to establish a sense of anonymity, a belief that anonymity has been achieved would be founded on a very meagre hope. Teachers were very open about their working with the researcher. Their ‘organisation’ is a small one and, were the institution to be correctly identified, the participants would be easy to identify by a very simple description of their roles. If someone should have a
specific interest to discovering who the participants were, it would be an easy mystery to solve.

The process of getting access to the VTEIs began by requesting permission formally, in writing, through the official channels. The first step the researcher took regarding this matter was to write and explain in detail the purpose of the study and the data collection methods to be used to the Director of the DTE, Ministry of Education, Brunei, to get permission to conduct the research. A letter of approval to conduct the research arrived promptly and is provided in Appendix C. By giving permission, the DTE was expecting participation from the teachers. Even though individual consent is not required in Brunei, the researcher could not expect access to the VTEIs as a matter of right (Cohen et al., 2000). The researcher is fully aware that in other countries such as Australia, written consent is required from every participant, but this is not the case in Brunei. The researcher approached the Principals and the Heads of departments of the institutions where the data collection took place and informed them of his intentions. They were very welcoming and consented to the request. The researcher nevertheless still approached each of the interviewees to get their consent. The researcher informed the interviewees involved of his intention when he met them. Nobody withdrew through the study period even though they could do so.

Analysing data may present another ethical problem. The researcher was the primary instrument of data collection since all data was filtered through the researcher’s particular theoretical position and biases. Deciding what was important, and what should or should not have been attended to, was initially the researcher’s decision (Merriam, 1989). Thus, opportunities existed for excluding data contradictory to the
researcher’s views. While personal biases were not always apparent to the researcher, it was essential that he strove to be as non-biased, accurate and honest as possible in all stages of the study (Diener & Crandall, 1978). Biases that cannot be controlled were discussed in this dissertation document. Furthermore, the researcher always presented sufficient data to enable readers to draw their own conclusions.

Another consideration was the storage of data during and after the study. The forms of data collected from the semi-structured interviews included a hard copy of participants’ informed consent and respondents’ demographic information, audiotapes of the interviews and a hard copy of transcribed interview data. The forms of data collected from the survey questionnaires included a hard copy of respondents’ questionnaires and computer disks containing data from the questionnaires. Data from audio-tapes, computer disks and hard copies will remain in the possession of the researcher and be accessed only by the researcher and his supervisors. Data will be kept for a period of five years in accordance with the Murdoch University’s Human Research Ethics Committee, after which they will be destroyed.

3.7 Summary of the chapter

This chapter detailed the rationale for using both qualitative and quantitative methodologies. Then it examined and described the various parts of the research design that were implemented in order to maximise the examination of the perceptions of stakeholders of the quality assurance of the assessment process in VTE in Brunei. The first part of this section explained the researcher’s position
within this study and how participants for this research were selected. Methods of data collection and justification for using them have also been outlined. The development and implementation of the interviews and the self administered survey questionnaire were also discussed. Issues associated with quality criteria of the study were then considered and finally, analysis of the inherent ethical considerations within this particular study was highlighted and the resultant provisions used to address these issues were provided. The following three chapters will display the data gathered by this research design.
CHAPTER FOUR

DATA PRESENTATION AND KEY FINDINGS:

Stakeholders’ understanding of the term quality and significance of quality assurance measures

4.1 Introduction

Research findings will be presented and analysed in three chapters, each of which focuses on the investigation of a specific aim of the study. In each of these chapters, the data obtained from different data collection techniques is written about the research questions. The data from the survey questionnaire is presented in descriptive form and, where appropriate, in numerical form around the themes relevant to the research questions, while the interview data is presented in descriptive form. The relevant texts of the interview transcripts are quoted as part of the narrative description of the findings.

In this chapter, findings relating to the two specific research questions which address the first aim of the study are presented. These are research question (1) How do the various stakeholders understand the term quality in VTE? and research question (2)
What purposes are perceived as significant by stakeholders in the implementation of a quality assurance system?

**Figure 4.1  Dissertation aim 1 and research questions 1 and 2**

Research Question 1: How do the stakeholders understand the term quality in VTE?

Research Question 2: What purposes are perceived as significant by stakeholders in the implementation of a quality assurance system?

**4.2  Stakeholders’ understanding of the term quality in VTE**

This section attempts to answer the first research question. Data to answer this research question was generated by semi-structured interview and survey questionnaire techniques. The interview data were used to explore the range of stakeholders’ perceptions of the term quality in VTE and the findings from these interviews were subsequently used in the design of the survey questionnaire, administered to a larger sample, in order to give an overview of the concept of quality of a larger population. The interview questions related to this research question are in Section B of the interview guide for teachers and Section E of the interview guide for administrators (Appendices G and H) while Section B1 of the survey questionnaire was used to elicit data for this research question (Appendix I).
It should be remembered that interviews were conducted with four key administrators from the DTE, five institutional level administrators and 12 teachers from the five VTEIs. The survey questionnaire aimed at cross-checking the initial interview data, and surveyed a total of 122 respondents, consisting of 21 administrators and 101 teachers.

As discussed earlier in Chapter Three, in developing the interview and the survey questionnaire to answer research question (1) and in analysing data from these two data collection techniques, the questions and findings were grouped into five discrete but interrelated ways of thinking about quality as proposed by Green (1994), Harvey and Green (1993) and Harvey and Knight (1996). These are quality as ‘exceptional’, quality as ‘consistency’, quality as ‘fit for purpose’, quality as ‘value for money’ and quality as ‘transformative’. Even though interviews were conducted before the survey and that the findings from these interviews were subsequently used in the design of the survey questionnaire, in reporting the findings, the data from the survey questionnaire are presented first. This is then followed with the use of a selection of relevant quotes from interviewees. This arrangement is made to illustrate quantitatively the general thinking of a larger population of the stakeholders in their ranking of which definitions best describe quality in VTE. The findings from the interviews are used to justify and illustrate qualitatively why stakeholders had these perceptions.

The analysis and reporting of the questionnaire data are based on the two groups of stakeholders’ views, the administrators and the teachers. The interview data are reported by combining the two groups of stakeholders’ views, first to give an
overview, and specific comments from the administrators and teachers are presented only when applicable.

On examination of the survey questionnaire data, it was noted that 38% of administrators and 30% of teachers did not rank the statements as instructed even though it was clearly stressed in the instructions in bold letters that the numbers 1 to 5 for the ranking ‘should only be used once’ (see Appendices G and H). These respondents used some of the rankings more than once and in some cases did not use all of the numbers in ranking the definitions. It was decided that even though a third of the respondents did not follow the given instruction, their choices were still used in formulating the findings. This was done after considering that the respondents’ choices were not errors, but rather their reflections on the way quality should be defined, which were confirmed by responses in interviews. The number of respondents choosing a particular ranking for each of the definitions is calculated.

In analysing the data, the first rank was chosen as the basic for comparison. The results are shown in Table 4.1a and 4.1b. The Kendall tau rank correlation coefficient was used to measure the degree of correspondence. In other words, it measured the strength of association of the cross tabulations. If the agreement between the two rankings is perfect, the coefficient has a value of 1. If the disagreement between the two rankings is perfect, the coefficient has a value of -1. For all other arrangements the values lies between -1 and 1, and increasing values imply increasing agreement between the rankings. If the ranking is completely independent, the coefficient has a value of 0.
### Table 4.1a  Defining quality in VTE (Administrators)

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Exceptional</th>
<th>Transformative</th>
<th>Fit for purpose</th>
<th>Consistency</th>
<th>Value for money</th>
</tr>
</thead>
<tbody>
<tr>
<td>Best Describe</td>
<td>1</td>
<td>10</td>
<td>9</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>6</td>
<td>5</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Least Describe</td>
<td>5</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>

* The total number of responses in the columns do not always equal the number of administrators because 38% of them used a particular ranking more than once.

### Table 4.1b  Defining quality in VTE (Teachers)

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Transformative</th>
<th>Exceptional</th>
<th>Fit for purpose</th>
<th>Value for money</th>
<th>Consistency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Best Describe</td>
<td>1</td>
<td>37</td>
<td>29</td>
<td>21</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>26</td>
<td>17</td>
<td>26</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>19</td>
<td>25</td>
<td>35</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>11</td>
<td>20</td>
<td>13</td>
<td>19</td>
</tr>
<tr>
<td>Least Describe</td>
<td>5</td>
<td>7</td>
<td>9</td>
<td>4</td>
<td>27</td>
</tr>
</tbody>
</table>

* The total number of responses in the columns do not always equal the number of teachers because 30% of them used a particular ranking more than once.

The Kendall tau coefficient for the two rankings above has a value of 0.6. This shows moderate agreement between the two rankings. However, the questionnaire
data on how stakeholders understand the term quality in VTE revealed that quality as ‘exceptional’, quality as ‘transformative’ and quality as ‘fit for purpose’ were the top three choices for both the administrators and teachers. Both groups of stakeholders put less emphasis on quality as ‘consistency’ and quality as ‘value for money’ definitions.

The findings reveal that administrators placed about equal importance on the definition of quality as ‘exceptional’, quality as ‘fit for purpose’ and quality as ‘transformative’ in defining quality. Teachers, on the other hand, seemed to perceived the definition of quality as ‘transformative’ compared to quality as ‘exceptional’ and quality as ‘fit for purpose’ as the definition that best described their view of quality in VTE. The findings may imply that in ranking quality as ‘exceptional’, ‘fit for purpose’ and ‘transformative’ as the definitions that best represented the view of quality in VTE, that the administrators, being the policy and decision makers, emphasised equal importance in quality as excellence, as something distinctive, as a standard which is both absolute and recognisable with high quality input and the excellent level of resources. They also view quality as the ability of an institution to fulfil its mission or a programme of study to fulfil its aim and a measure of the extent to which the educational experience enhances the students’ knowledge, skills and abilities.

Teachers, placing more emphasis on quality as ‘transformative’ as the best definition to represent quality in VTE, may imply that teachers as front line personnel of the organisation, who are in direct contact with the VTE students, base the quality of their graduates as the way they measured quality. Their perception of quality seems to relate more to their students’ knowledge, skills and abilities. This finding is
consistent with a reading on quality in higher education by Harvey (1998) who suggests that teachers are more likely to subscribe to the definition of quality as transformative, as by undertaking education, individual’s lives may be transformed. These findings are also consistent with the study carried out by Gibb (2003) where quality as ‘excellence’ reflected the system teachers perceived management to be implementing.

An interesting finding was that the choices made by the stakeholders, both administrators and teachers, was not restricted to one particular definition. This was shown when three of the definitions; quality as ‘exceptional’, quality as ‘transformative’ and quality as ‘fit for purpose’ were chosen as the three top choices, implying that no one definition was highly dominant compared to the other definitions. The finding also shows that different individuals defined quality differently.

In the interviews, both groups of stakeholders, in describing their understanding of the definition of quality as ‘excellence’, described the term as a measure of excellence. They talked about criteria, standard, performance standard, benchmark and extraordinary in describing their understanding of the term. As pointed out by one of the administrators:

> Quality is the standard you set, that you want to achieve. Quality assurance is a benchmark exercise. If you want to set quality, it means you have to have benchmarks, for example, when we talk about quality, is our quality comparable? or is it the same standard as other institutions throughout our region? We can see our quality if our students can produce the same product, the same quality, the same standard with our ASEAN counterparts. If they can excel, then the quality is there. (ADM03.1)
As in the survey findings, the definition of quality as transformative was one of the three top choices of the interviewees. A large number of interviewees discussed their students’ ‘knowledge and ability to be able to pick things up later’, their students’ ability to update themselves and to change and innovate. A number of teachers were confident that with a quality education, their students should be able to ‘pick things up much faster than the others’ when they are in employment even if these students were not doing the same tasks as they learnt in the VTEIs. This was pointed out by a teacher when she stated:

Students learn something. It is not that they are coming here and they are not getting anything, they learn something in the class. Before they come to the class, they don’t know about the subject. But out of the class, they know, they learn something after they attend the class. They benefited. (TCH06.4)

As with the survey, a large number of interviewees discussed quality in terms of quality as ‘fit for purpose’. In defining the term quality in VTE, interviewees mentioned usefulness, meeting our requirements, meeting the Brunei setting, meeting local market’ requirements, relevant to the needs of the country and the needs of industry, compatible and capable and also that quality VTE can guarantee futures for students, both for employment and for further study. An administrator related her definition of quality as ‘fit for purpose’ by giving a situation when one buys ‘a pen’:

Let’s say, there are two pens, one this colour and another one, another colour. Which one will you buy? Even though one of them might look attractive, I have to test them first. The pen that works well will be the one that I will choose. That’s why, as I said earlier, for technical education, I don’t want a programme or course with an eye catching title. The output, it must be relevant and useful to the students and to the employers. (ADM06.4)

The findings from the survey have shown that the definition of quality as ‘value for money’ was not a common choice for the respondents. This finding was consistent
with comments from the interviews where only two administrators related the ‘value for money’ answer in defining quality in VTE. One of the administrators mentioned:

I think, when choosing between us and the private providers, many parents would prefer us because our certificates have more value. It is important in the job market. People want graduates with the quality they require. If we cannot make a good impression with our quality, people will look down on our products. (ADM05.3)

However, another administrator emphasised that in the context of VTE in Brunei, this approach is not useful. Even if this approach in defining quality is useful, he added, it will not be high on DTE’s priority list. The reason given was that it was common knowledge that it costs more to train VTE students compared to students in the academic stream. In discussing the issue further, he added that it was always difficult to estimate a feasible cost for Brunei’s VTE context as the DTE is the only provider of vocational training in the country.

A few administrators elaborated that by ensuring quality VTE provision, it will give their students added advantages, as they believe that in the current and future international market, employers will put more emphasis on a quality workforce rather than on cheap labour. This was emphasised by an administrator when he said that ‘gone is the day of cheap labour as a competitive advantage to a country’.

Similar to the definition of quality as ‘value for money’, the definition of quality as ‘consistency’ did not attract much feedback from interviewees. This is also consistent with the survey findings where only a small percentage of the respondents perceived it as the best definition of the term quality.
A small number of interviewees, both administrators and teachers, although ranking the statements as instructed, acknowledged that they felt it was ‘not right to define quality with just any one of the definitions’. They felt that the most appropriate definition of quality in VTE would be a ‘combination of a few or all of the definitions’, acknowledging that ‘some might be more important than other depending on the context’. This implies that a number of interviewees did not find the task a straight forward one, and it may also reflect the difficult and complex nature in defining the term quality. This finding is consistent with Hager’s (1997), Harvey and Green’s (1993) and Lakomsi’s (1998) conclusions that the concept of quality in education is difficult to define. The finding is also consistent with Van den Berghe’s (1997) view that there are multiple conceptualizations of quality, each reflecting a different ideological approach.

In summary, the survey questionnaire showed that both administrators and teachers, perceived quality as ‘exceptional’, quality as ‘fit for purpose’ and quality as ‘transformative’ as their top three choices of the definitions that best described their view of quality in VTE. However, teachers seemed to favour the definition of quality as ‘transformative’. The interview data were able to reflect and justify the reasons for the stakeholders’ choice for each of the approaches. Both the survey questionnaire and interview data showed that a number of interviewees and survey questionnaire respondents’ ranked more than one approach, in some cases all of the approaches, as the choice of statement that best described the definition of quality. This finding also shows the stakeholders’ difficulty in selecting a common definition for the term quality and beyond their difficulty in selecting definitions is the finding that quality is multi-dimensional.
The next section of this chapter looks at the most significant purposes for implementing a quality assurance system as perceived by stakeholders.

4.3 The purposes perceived as significant by stakeholders in the implementation of a quality assurance system

This section attempts to answer research question (2). Data to answer this research question was generated by semi-structured interviews and survey questionnaire techniques. The interview questions related to this research question are in Section B and E of the interview guide (Appendix G and H respectively) while Section B2 of the survey questionnaire was used to elicit data for this research question (Appendix I). As in the previous research question, the interview data were used to explore the range of purposes for implementing a quality assurance system as perceived by stakeholders.

In developing the interview and the survey questionnaire and in analysing data from these two data collection techniques, the questions and findings were grouped into the five purposes or functions for implementing a quality assurance system as discussed in Chapter Three. These purposes include: improvement (Harvey, 1998; Van Bruggen et al., 1999; Van Damme, 2000), accountability (Schofield, 1999a; Van Damme, 2000), public information and market transparency (Harvey, 1998: Van Damme, 2000), resource allocation (Van Damme, 2000) and control (Harvey & Newton, 2004).
As in the previous section, the findings from the survey questionnaire are presented first, followed by a selection of relevant quotes from the interviews. This arrangement is made to illustrate quantitatively the general perceptions of a larger population of the stakeholders in their ranking of which purposes of implementing a quality assurance system they perceived as significant. The findings from the interviews are used to justify and illustrate qualitatively why stakeholders had these perceptions. For this research question, the analysis and reporting of the questionnaire data are based on the two groups of stakeholders’ views, the administrators and the teachers. The interview data are reported by combining both groups of stakeholders’ views, first to give an overview and only when applicable, specific comments from the administrators and teachers are presented.

Findings from the questionnaire about stakeholders’ perception of the most important purposes for implementing a quality assurance system revealed a similar finding as in the previous section, where it was revealed that more than a third of the respondents (37% of administrators and 40% of teachers) did not rank the statements as instructed even though it was clearly stressed in the instructions that the numbers 1 to 5 ‘should only be used once’. Again, these respondents used some of the ranks more than once and in some cases did not use some of the numbers in ranking the purposes. This issue was also raised during the interviews when interviewees refused to rank the items when requested. A small number of interviewees, both administrators and teachers, agreed to rank the statements as instructed, but acknowledged that they felt the most significant purpose of implementing a quality assurance system would be a ‘combination of a few or all of the statements’,
acknowledging that ‘some might be more important than others depending on the context’.

As in the previous section, in analysing the questionnaire data, it was decided, even though some respondents did not follow the instructions in ranking the most important purpose for implementing a quality assurance system, their choices were still used in formulating the findings. This was done after considering that these choices were their reflections on the purposes they perceived as important in implementing a quality assurance system. The number of respondents choosing a particular ranking for each of the purposes is calculated. As in Section 4.2, the first rank was chosen as the basis for comparison. The results are shown in Tables 4.2a and 4.2b. Again, the Kendall tau rank correlation coefficient was used to measure the degree of correspondence.

Table 4.2a  Significant purposes for implementing a quality assurance system as perceived by administrators

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Number of Administrators (n=21)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Improvement</td>
</tr>
<tr>
<td>Most Significant</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Least Significant</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>5</td>
</tr>
</tbody>
</table>

* The total number of responses in the columns do not always equal the number of administrators because 37% of them used a particular ranking more than once.
Table 4.2b  Significant purposes for implementing a quality assurance system as perceived by teachers

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Number of Teachers (n=101)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Improvement</td>
</tr>
<tr>
<td>Most Significant</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Least Significant</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>5</td>
</tr>
</tbody>
</table>

* The total number of responses in the columns do not always equal the number of teachers because 40% of them used a particular ranking more than once.

The Kendall tau coefficient for the rankings of the most significant purposes has a value of 0.6. This shows moderate agreement between the two rankings. The questionnaire findings about stakeholders’ perceptions of the most important purposes for implementing a quality assurance system revealed that both administrators and teachers were in agreement that improvement should be the most important purpose for implementing a quality assurance system. The next important purposes for implementing a quality assurance system as perceived by administrators and teachers were accountability, control and resource allocation with public information as the least important purpose for its implementation. This finding revealed that improvement was the top choice for both groups of stakeholders. Respondents placed less significance on accountability, control and resource allocation and even lesser significance for public information as the purposes for implementing a quality assurance system. This finding is consistent
with Harvey (1998), Van Bruggen et al. (1999) and Van Damme’s (2000) view that mentioned improvement of education as the main and most frequently stated purpose of the quality assurance process.

In order to flesh out the quantitative data from the survey, the findings from the interviews will be presented to illustrate the reasons for stakeholders’ choices of the purpose for implementing a quality assurance system. Cross-references will be made to the survey findings in order to explore the consistencies or contradictions between the two sources of information. These findings are discussed below.

In the survey questionnaire findings, improvement was chosen by the largest proportion of respondents, both administrators and teachers, as the most significant purpose for implementing a quality assurance system. Not much feedback however was received during the interviews about this issue except that interviewees acknowledged that a quality assurance system would provide guidance and feedback which could improve the organisation’s productivity. In stressing the importance of improvement as the purpose for implementing a quality assurance system, a teacher pointed out that:

… to improve the organisation, to improve the productivity. Guidance in improving our productivity, at the end of the day this will improve the system. (TCH10.1)

The intention of providing guidance and feedback appear to support Van Damme’s (2000) argument that a quality assurance system serves primarily to give feedback to the teaching staff of an educational institution in order to have the curricula, content, infrastructure and delivery modes of academic education improved.
The survey findings showed that a third of the administrators and a quarter of the teachers, chose accountability as the most significant purpose in implementing a quality assurance system. However, a majority of the interviewees mentioned that accountability should be the main purpose for both the DTE and its VTEIs in introducing a quality assurance system. One administrator acknowledged that all VTEIs were accountable to the public because these institutions were public sector organisations. He emphasised that even though ‘Brunei’s people’ were not taxpayers, accountability should be the most significant purpose for the introduction of the quality assurance system as these institutions use and spend public money for training their students.

Three teachers believed that a quality assurance system would provide them with a force to perform their duties sincerely and act as a measurement on how teachers perform. One of the teachers said:

By stressing accountability, I will be made aware that I have to do it perfectly. I have to always find ways to improve, to take the initiative to give more to the students. If someone is looking at me, checking on me, I can give an account to the person in-charge and be accountable. Otherwise if you just leave it to me, I can do it as I like, and possibly it will not end up with whatever we are intending to achieve. (TCH05.3)

One teacher felt that the system would ensure that they would be made accountable as to the type of knowledge and skills they delivered to the students and be accountable in their way of imparting that knowledge and skills. Another teacher described his effort in trying to make himself more productive by increasing his effort in making his teaching ‘more interesting’. These comments confirm Schofield’s (1999a) view that accountability is the degree to which stakeholders meet and are perceived to meet their obligations in achieving identified objectives. It
also confirms the views of Askling, Lycke and Stake (2004) that educational institutions are required to satisfy criteria of adequacy, to be more responsible and cost efficient in the way they use and consume public funds and resources.

Control as the purpose for implementing a quality assurance system received less emphasis from the survey respondents. In the survey findings, more than a third of the administrators and less than a sixth of the teachers selected ‘control’. This finding was consistent with the interview findings where only a small number of administrators and none of the teachers commented on this purpose. The administrators also showed a divided opinion on control as the purpose of implementing a quality assurance system, indicating on the one hand, that administrators believed that it was necessary for control to be established in order for the successful implementation of a quality assurance system, but on the other hand, control ‘can be and was already pursued by other means’. They felt that it is not necessary for the quality assurance system to duplicate this initiative as is pointed by this comment:

Control? No, not control. Dictate the person to work, I don’t like the word control. We have so much control elsewhere, our administrative procedures are already control mechanisms. You have to fill in the registration form, not everybody gets to offer our programmes. To be an approved centre, etc, they need to apply to the BDTVE Council. It’s already there, it is not missing in our system, in fact, I feel we are very good at control, ha, ha. (ADM01)

None of the interviewees commented on resource allocation as the purpose of implementing a quality assurance system. This finding is almost consistent with the survey findings when only a small proportion of respondents (a third of the administrators and nearly a quarter of the teachers) perceived resource allocation as the purpose of implementing a quality assurance system.
The ‘public information’ purpose for implementing a quality assurance system received the least support in the survey finding with only one out of 21 administrators and 15 out of 101 teachers selecting it. However, during the interviews it received a large number of comments and feedback. Some interviewees thought the main purpose of having a quality assurance system was to inform the public about the DTE, its VTE institutions, the programmes offered as well as the type of certificates issued by the BDTVEC. A small number of interviewees acknowledged that parents, students and the community’s negative perceptions towards VTE have improved over the years, however they emphasised the importance of continually promoting and projecting a positive image of VTE amongst the public. In emphasising this, an administrator said:

Public and market information are more important to us because even if we ask students and parents in secondary schools, they don’t know our system. Even though we have websites, convocations, etc, they still don’t know what we are offering. To me, quality assurance is when the public shows confidence in us delivering the programmes, the service, etc. (ADM01)

In emphasising the significance of public information as the purpose of a quality assurance system, one teacher described one of her own experiences in assuring her student of the value of the qualification and knowledge she would be getting by studying at the technical institution. She also stressed the importance of providing VTE information to industry and the public.

She was a bit disturbed. I was her teacher. Her friends were asking her why she was coming here. They kept telling her that a certificate from the Six Form Centre is much better than one from here. Currently, our standing is improving in society, but still, people think that our qualification is not as good as Form Six. So I assured her. This is why quality assurance is very important, we need to let the industries see this, and in general, society! They have to see that, yes, we are producing quality students. Our students can do their jobs, they can change and they can adapt much better than the academic students. (TCH03.5)
The teacher’s experience supports Harvey’s (1998) view that the main intention of this purpose is for users, such as prospective students, to use information provided by the educational institutions to make informed choices.

In summary, the survey questionnaire revealed that both administrators and teachers agreed that improvement was the most significant purpose for implementing a quality assurance system. Both administrators and teachers perceived control, accountability and resource allocation as the next significant purposes. Both groups put little significance on public information as a purpose for quality assurance implementation. This finding was largely supported in the interviews of administrators and teachers. The data also revealed that a number of stakeholders did not rank the items as instructed, implying they might have felt that ranking these items would make one item more or less significant than others.

4.4 Conclusion

This chapter addressed the first aim of the study regarding the way stakeholders’ understood the term quality and the significance of quality assurance measures. The administrators and the teachers in this study perceived quality as ‘exceptional’, quality as ‘transformative’ and quality as ‘fit for purpose’ as their top three choices of the definitions that best described their view of quality in VTE. A number of stakeholders, both administrators and teachers, ranked more than one approach, in some cases all of the approaches, as the choice of statement that best described the definition of quality. This finding shows the stakeholders’ difficulty in selecting a common definition for the term quality. The finding also revealed that both
administrators and teachers agreed that improvement was the most significant purpose for implementing a quality assurance system. The variety of definitions adopted by these groups of stakeholders, as well as the purposes they perceived as significant, may determine and affect the type of quality assurance strategies formulated as well as the support they would receive for successful implementation.

The next chapter will address the second aim of the study and the issues related to research questions (4), (5) and (6) about the current quality assurance measures in place in the DTE and its VTEIs, stakeholders’ perceptions of their effectiveness and stakeholders’ recommendations for improvement.
CHAPTER FIVE

DATA PRESENTATION AND KEY FINDINGS:

Current practices of the DTE and its VTEIs in ensuring quality of the assessment process

5.1 Introduction

Chapter Four established the different approaches the two groups of stakeholders, the administrators and the teachers used in defining the term quality in VTE, as well as the similarity in both groups of stakeholders’ choice of improvement as the most significant purpose for implementing a quality assurance system. This chapter deals with the second aim of the study and the next three research questions.

Figure 5.1 Dissertation aim 2 and research questions 3, 4 and 5

Aim 2: Assess current practices of the DTE and its VTEIs in ensuring quality of the assessment process

Research Question 3:
What are the current quality assurance measures for the assessment process in the VTEIs and how are they formulated?

Research Question 4:
How do stakeholders’ currently perceive the assessment process quality assurance measures?

Research Question 5:
What recommendations do the stakeholders have to improve the current quality measures?

166
Figure 5.1 illustrates the structure of this chapter in which each research question is addressed in a separate section. This chapter will establish the current quality assurance measures for the assessment process in the VTEIs and the way they were formulated. This chapter will also look at the ways stakeholders view the effectiveness of the current quality assurance measures in the DTE and its VTEIs as well as their recommendations on ways to improve the current quality assurance measures.

5.2 The current quality assurance measures for the assessment process in the VTEIs and the way they were formulated

Research question (3) has been divided into two parts: a) What are the current quality assurance measures for the assessment process in the VTEIs? and (b) How are these measures formulated? This section has been divided into two subsections, each addressing one of these questions.
Documentary analysis was carried out to explore the current quality assurance measures that were in place in the five of the nine VTEIs. The findings from the documentary analysis, the literature review and the researcher’s professional experience were used subsequently in designing the interview guides and the survey questionnaire to answer research question (3). Semi-structured interviews were used to explore the range of current quality assurance measures used by the five VTEIs (institutions A, B, C, D and E) and where applicable, on how these measures were formulated. The survey questionnaire on the other hand, administered to a larger sample, was used to explore the stakeholders’ perceptions of the formulation of
quality assurance in the DTE and its VTEIs, in order to make generalisations on the views of administrators and teachers about the specific issues.

### 5.2.1 Current institutional quality assurance measures

This subsection presents the data on the current quality assurance measures for the assessment process in VTEIs. A search of guidelines, rules and regulations, memoranda and minutes of meetings related to central and institutional policy and practices for the assessment process quality assurance measures, both in the DTE and the five VTEIs was carried out between February and October 2005. The documentary analysis revealed a key document, the BDTVEC Certification and Assessment Policy guidelines (CAG6/2000), however there were no specific details on quality assurance issues and strategies to ensure quality of the assessment process. The documentary analysis also revealed that the Secretariat Section of the DTE had sought feedback from all VTEIs on the proposed ‘Assessment process and quality assurance’ guidelines in March 2005. VTEIs gave their feedback in April 2005. After amendments, these guidelines were implemented in late October 2005. These were the first guidelines issued by the DTE related to quality assurance for the assessment process for VTE programmes.

The documentary analysis on the current situation in the DTE and the VTEIs reveals that the quality assurance measures appeared to be fragmented and information on quality assurance measures or strategies had to be located in files in different sections or departments. There was no consolidated document applicable to quality assurance of assessment process. Except for Institution A, where minutes and documents of their institution assessment procedures were available, the other
VTEIs had no institutional documentation which explicitly or implicitly discussed assessment procedures. Likewise, no documentation was found from the various departments in these institutions even though some have departmental procedures.

As discussed earlier, the semi-structured interview technique elicited data to provide insight into this research question. Four key DTE administrators, five institutional level administrators and 12 teachers from the five VTEIs; three each from institutions A, D and E, one from institution B and two from institution C were interviewed. The interview questions related to this part of the research question is in Section C of the interview guide for teachers (Appendix G) and Section B of the interview guide for administrators (Appendix H).

These interviews revealed several quality assurance issues and initiatives currently implemented in the five VTEIs, which included the absence of a ‘formal’ quality assurance system, the current institutional quality assurance measures, the external moderation system and the ‘Assessment process and quality assurance’ guidelines. These issues and measures are discussed in turn and will be summarised at the end of this subsection.

**The availability of a structured comprehensive quality assurance system**

On the issue of the availability of a structured comprehensive quality assurance system, a unified quality assurance system which was planned and initiated by the DTE for all its VTEIs, all interviewees, both the administrators and teachers, agreed that there was no such quality assurance system in the DTE. The interviews confirmed the documentary analysis findings that the DTE has not been issuing or
implementing a structured comprehensive procedure or guidelines on quality assurance strategies to ensure the quality of the assessment process in the five VTEIs. However, most interviewees acknowledged the existence of various committees such as course teams, academic boards, external moderators, and Programme Development Executive Committees (PDECs), established in DTE and the VTEIs which they perceived helped in assuring the quality of the assessment process in VTE. A senior administrator at the DTE acknowledged this issue when he commented:

Actually, there is no formal quality assurance system in the Department of Technical Education. We assume that we have this quality assurance through the various processes that are in place. At the institutions, for example, there are course teams, and academic boards, there is some internal moderation being practiced in some departments, and we also have external moderation for National and Higher National Diploma programmes. To me, we have not yet really developed a solid quality assurance system. (ADM01)

The document analysis and interviews findings have established the absence of a structured comprehensive quality assurance system in the DTE and its VTEIs.

**Current institutional arrangements in ensuring quality of the assessment process**

This part of subsection 5.2.1 presents the findings on the current arrangements for quality assurance of the assessment process used by each of the five VTEIs studied. The semi-structured interviews were used as the data collection technique for this part of research question (3). In reporting and presenting the interview data, the views of the interviewees are grouped according to their institutions in order to show similarity and differences in the quality assurance measures implemented by these institutions.
The interviews conducted with administrators and teachers in Institution A indicated that the institution has established an examination unit. This unit has an examination officer and four examination coordinators. It is responsible for the process of producing assessment papers, the process of examinations as well as the process of marking the assessment papers and compiling results for deliberation by the institution’s academic board and the BDTVEC. In describing his institution’s quality assurance strategies, a senior administrator at Institution A commented:

We have one Examination Unit with one examination officer and four examination coordinators. They are on a two year appointment. We found that there are loopholes, such as monitoring, especially during result submissions and the completion of the ‘AF’ forms. We sit down together and we come up with a college procedure, which are followed by all departments. Three sets of question papers have to be submitted to the examination officer before the examination. The Examination Unit will choose one set for the exam. After marking, the marks will be submitted to the Examination Unit. We require at least two staff to be involved in preparing the examination paper. There should also be a second checker or marker. (ADM01.1)

In exploring further, a teacher elaborated on the process of preparing assessment papers, verification, marking and the moderation process implemented in her department. This exploration resulted in the following discussion:

We have our own internal verification. All of us who teach XXX unit for the Pre-national diploma, sit together. We refer to the unit guide, and the assessment scheme, and then we discuss it. We prepare our own scheme of work and this ensures uniformity in the department. We discuss what it is that we want to assess. One of us will set the paper, and the rest vet it. We have the setter sign the exam paper cover, and then we also have the moderator sign the form. After the examination, once we have the answer scripts, we mark them and on the cover of the answer scripts, again we have the name of the instructors marking the papers, and then we have another staff member to verify it. The cover sheet comes from the Examination Unit. (TCH05.1)

The interviews conducted with administrators and teachers in Institutions B, C, D and E revealed that these institutions have no institutional procedure to ensure quality of the assessment process. One senior administrator from Institution E and a teacher from Institution D stated:
… there are no guidelines from the institution, no guidelines, because this is just departmental initiatives. We don’t come up with one standard thing to do. (ADM04.2)

No, no sample paper is available. No benchmark. No guideline. No exemplar. No booklet or procedure. (TCH06.4)

The interviews conducted in Institutions B, C, D and E identified different attempts carried out by departments in these institutions as well as by group and individual teachers trying to come up with assessment papers. A teacher in Institution B mentioned that his institution has standardised their examination week as a strategy in achieving consistency. The interviews conducted with three teachers from Institution E confirmed and elaborated the findings. They detailed the ways their departments tackled the issue of ensuring quality of the assessment process. These strategies included some form of an assessment banking system, staff working together to produce common assessment papers and the assessment papers externally moderated.

We have an assessment banking system. All the questions are the same for all groups. If a subject was taught by more than one staff member, each instructor teaching the subject contributed questions. We, members of the group will discuss the questions. Once compiled, we can just pick any paper to be used for any assessment from the bank. In fact, we also prepare model answers. (ADM04.2)

Some teachers in Institution D acknowledged the existence of departmental procedures in some departments in their institution, with the way their assessment papers were processed. However, they also acknowledged that this measure was only taken to ensure the language aspects used in the assessment papers were grammatically checked and it does not look at the other aspects of the assessment process such as relevance, reliability and the validity of the assessment paper. This was mentioned by a teacher in explaining the assessment process procedure teachers follow in his department.
Only the head of department verifies the assessment paper. The verification is only done as a grammar check. There is no content verification. The paper is not double marked. Basically vetting is just for the purpose of checking grammar. This is consistent in all departments, except the mechanical department. It is only departmental procedure, not institutional procedure, and not for the DTE. (TCH01.2)

One teacher in institution D discussed her experience, in preparing an assessment paper. She described how a group of teachers for one of the common units, come up with a common test paper for all students taking the subject. However, the teacher acknowledged that this might not be the right approach due to the different programmes students are enrolled in.

All students will be getting the same paper, didn’t use to when I first came here, but I am not necessarily saying that it is a good thing either. It has problems. That’s what I mean. For example, XXX programme, I would rather emphasis students’ oral skills because they will be working in the XXX1, where as in the XXX2 programme, as long as they can hang the door, and they measure it, plan it, build it, they probably don’t need the oral skills as much, you know, they might need written skills more. (TCH02.4)

In one department in institution E, one teacher commented that the assessment papers for the final examination were sent to the external moderator for moderation.

The final exam is done through our moderator and he gives us ideas, he moderates. I think we were the only department doing it until about two years ago. I don’t know whether this is part of the moderator’s job, you know, because that means, we can just e-mail our questions and send them to him in the U.K. and say, can you just look at them please. (TCH03.5)

In another department in Institution E, one teacher described the practices that evolved over the years. The experiences of expatriate teachers, the knowledge gained by teachers when they attended programmes and courses and the way experienced teachers helped and guided the new teachers were perceived as strategies her department used in ensuring the quality of the assessment process.
Previously we had a lot of experience from foreign instructors. Most of the assignments were set by them. The question papers have been passed around for many years, so a lot of time, most of our staff follow that type of question setting. Our moderator likes it. Some of the local staff, they went off to UBD for training. I picked up the assessment criteria and marking scheme from one of those teachers. It’s very good, and we learn from them. (TCH03.5)

Both the administrators and the teachers in Institutions D and E acknowledged that in some cases, individual teachers themselves come up with the initiative. An administrator commented that:

Previously, I was doing it but I am not sure what the other staff in the department are doing. It depends on the teaching staff, if the teaching staff are concerned, then they will do it. (ADM07)

One teacher in Institution E described his initiative in producing learning packages which have possible questions as well as samples of previous assessments papers included in it. He stated:

I ensure the credibility of my assessments by having learning packages. In my absence, any teacher can use this package to look after my class. Students no longer have written notes, which took time to copy. For every topic, I include possible questions and when I conclude each topic, I give them a test. The test comes from the numerous questions I have provided in the learning package. I have also compiled questions from previous assessments. (TCH11.5)

In general, the interviews also confirmed that all five VTEIs have examination officers, currently or have had at a certain point of time. Most administrators and teachers in these institutions understand the roles and responsibilities of an examination officer. Such roles as described by interviewees included organising all question papers, preparing for the examination, preparing question banks, and organising and coordinating teaching resource files. The findings revealed that in Institution A, the strategy of using an examination officer seems to work well, however in the other four institutions (B, C, D and E), a large majority of the
interviewees in these institutions commented that the arrangement is not working, and in most cases is ineffective. This is explained by one of the teachers in Institution C:

No. Nobody monitors the assessment in the department. The examination officer, no, he does not do any monitoring (smile). At the moment we don’t have any examination officer, do we? He said he has written a letter to the principal, that he is no longer the examination officer. Anyway nothing has been done. It’s not working. (TCH06.4)

One teacher commented that his institution had no examination officer. This may be due to the ineffectiveness of the examination officer that teachers presumed this officer do not exist in their institution.

I don’t have any idea. I don’t think there is one. I’m afraid to say that. (TCH03.5)

Data from the interviews also confirmed that in all institutions except Institution A, a large number of administrators and teachers had no knowledge of the strategies used by the other staff in their department in cases where there was no departmental procedure. Where there was no institutional procedure, almost all of the interviewees responded that they had no knowledge on the way the other departments in their institution handled the assessment process. The interview data also revealed that almost all administrators and teachers had no knowledge of the strategies used by the other VTEIs although a few administrators thought they knew what was going on in Institution A. This finding was reflected by a comment from one of the teachers:

I am on the PDEC, it is made up of instructors from different institutions, so even when we have our discussions, we never actually discuss how we come up with student assessments. We never know how the other institutions go about implementing their students’ assessment. It’s true… ha, ha. I don’t think we’re supposed to know. (TCH03.5)
A small number of administrators and teachers from Institutions B, C, D and E commented that Institution A has ‘some sort of institutional quality assurance strategies’ although they had no detailed knowledge of them.

**External moderation system**

Another quality assurance measure used by some of the VTEIs is the use of an external moderation system. The interview data revealed that all administrators and teachers from Institutions A, C and E mentioned the external moderation system as one of the measures set up by the DTE in their institutions to ensure the quality of the assessment process. The external moderation system was also mentioned by administrators and teachers from Institutions B and D as a DTE strategy in ensuring quality of the assessment process although their institutions were not currently using this system, as they only offer craft level programmes and not the technician level programmes, as in Institutions A, C and E.

**The ‘Assessment process and quality assurance’ guidelines**

The third quality assurance measure identified by stakeholders was the ‘Assessment process and quality assurance’ guidelines produced by the Secretariat Section of the DTE. The guidelines were yet to be implemented when the interviews took place in September and early October 2005. However, as mentioned earlier, a draft was circulated in March 2005 to all VTEIs for feedback and comments. Implementation of the guidelines started in late October 2005, before the survey questionnaire was distributed. This part of the section will report the findings from the interviews conducted before the implementation of the guidelines.
The interview data revealed that both administrators and teachers in Institution A and in some departments in the other four VTEIs agreed that there was some sort of procedure similar to the proposed guidelines in their institution and/or departments. The interview data also revealed that while fully supporting the incorporation of the guidelines to the existing procedure, both administrators and teachers in Institution A mentioned that the proposed guidelines were ‘a concept which they and their staff were already quite familiar with’. They added that the guidelines already formed part of the institution’s approach to quality management of the assessment process. The administrators and teachers in Institution A expressed their willingness to adopt the proposed guidelines and added that it will be just a case of ‘filling in the deficiency’ and ‘integrating it to their existing procedure’. This was reflected in a comment from one of the teachers:

I don’t see any problem why we cannot incorporate this. I think this will be on a more national level. I don’t have any problem with the verification process within all VTEIs. At the moment even when our strategy is functioning well, if we can incorporate something which will make this even better, then why not adopt it. (TCH05.1)

A majority of administrators and teachers in Institutions B, C, D and E which do not possess any institutional procedure viewed the proposed guidelines as a welcome improvement on the existing situation and have indicated their willingness to accept its implementation in their institutions. This can be seen from a comment by one teacher.

We have no proper guidance, so we have our own interpretation. We are more than willing to adopt a new one and drop the current one. (TCH01.2)
Although foreseeing difficulty in convincing some teachers to accept the proposed guidelines during the initial implementation stage, two administrators believed that eventually teachers will accept them.

Maybe, at first I don’t think the staff will readily accept, because for them it will be too much work, but we will have to enforce it, in order to get the quality. At the beginning I foresee resistance, always, as usual, but eventually they will follow. (ADM06.4)

Certainly not everyone was receptive about the proposed changes. A small number of teachers interviewed believed that they should be trusted as they feel that they are the experts in their field. The teachers emphasised that the time they spent with the students, ‘watching them work in the workshop’, ‘working with machines and tools’ should entitle them to such trust. A teacher noted:

I understand that the institution gives us, the experts in this sector, the right to judge the students’ performance. And we are working on that basis of authority and trust, that we are given the authority so we are doing it, we are exercising it as we feel we should. We have continuous assessment, we really cannot judge too much by looking at the examination papers, test papers or the answer scripts, we cannot. (TCH05.3)

However, an interesting finding was that even though the proposal was supposed to be circulated to all VTEIs in March 2005 for comments and feedback, administrators and teachers in one institution were puzzled as they had not received or seen the proposed guidelines. They also questioned the fact that they were being excluded from the feedback exercise.

I hope the proposal will solve the problem, but I have not seen it yet. Which one was that? Can you refresh my memory? Emmm, if it’s March of this year, I haven’t seen this document. I don’t know why they haven’t given it to us. I will ask them. I have no idea why I am missing something at this point. If there has been some kind of thing going on from March this year, I am supposed to know something, but to tell the truth, I don’t know anything about it. (ADM04.2)

Miscommunication was cited by the administrators and teachers in this institution as a reason for this issue even though some teachers were reluctant to discuss it further.
In summarising the current quality measures for the assessment process in the five selected VTEIs, the findings from the interviews clearly revealed that there was no structured comprehensive quality assurance system implemented by the DTE in its VTEIs. There were wide variations in the way the five VTEIs approached the quality assurance aspects of the assessment process. This ranged from institutional
initiatives, institutions’ departmental initiatives, and group and individual teachers’ initiatives.

The findings revealed that Institution A had already implemented institutional quality assurance measures to ensure the quality of an assessment process. There was an Examination Unit, with one examination officer and four examination coordinators in Institution A. However, the interviews conducted in the other four VTEIs revealed the absence of institutional quality assurance initiatives in these institutions. In Institution B, a common examination week was implemented. In Institution C, the implementation of quality assurance measures by some departments in the institution were revealed. In Institution D, the quality assurance measure was initiated by some departments in the institution, a few groups of teachers as well as a number of individual teachers. In Institution E, in addition to a few departmental initiatives, groups of teachers’ initiatives and individual teachers’ initiatives, some departments follow past practices of some expatriate teachers as well as practices of teachers returning from teaching courses. All five VTEIs at a certain point of time used an examination officer as a strategy for ensuring quality of the assessment process. However, all interviewees, except for administrators and teachers in Institution A, perceived such strategies as ineffective.

The interview data also revealed that the communication process within institutions and between institutions with regards to the quality assurance measures for the assessment process had not been effective. A majority of the interviewees were not aware of other teachers’ strategies in ensuring quality of assessment for those that have no departmental procedure, and a large majority of interviewees had no clear knowledge about how other VTEIs handle their quality assurance measures.
The study also confirmed that three VTEIs are currently using the external moderation system, which was set up by the DTE. Even though the other two VTEIs were not using this system, the administrators and teachers in both institutions were aware of the existence of such a system. The interview data collected before the implementation of the ‘Assessment process and quality assurance’ guidelines reveals that some interviewees believed there were some similarities between the proposed guidelines and the existing quality assurance measures being practiced in their institutions and/or departments. It was also revealed that most interviewees, both those in Institution A which have their own institutional quality assurance measures, as well as in the other four institutions which have no institutional measures fully supported the implementation of the proposed guidelines. A few administrators foresee difficulty in convincing teachers to accept the proposed guidelines but believe eventually they will accept it.

Having presented the findings on the current quality assurance measures in the five VTEIs in this subsection, the next subsection looks at the formulation of quality assurance measures in the DTE and its VTEIs.

5.2.2 Formulation of quality assurance measures in the DTE and its VTEIs

This subsection presents data on the formulation of quality assurance measures in the DTE and the VTEIs. The survey questions related to this part of the research question are in Section A of the survey questionnaire (Appendix I). The data were elicited from a total of 21 administrators, both administrators from the DTE (13) and administrators from VTEIs (8) and 101 teachers from the five VTEIs. This section is discussed under six headings based on those used in the survey questionnaire.
Organisation and management of quality assurance at the VTEIs

As can be seen in Table 5.1, a large majority of the respondents from the two groups of stakeholders (81% and 80%) believed that all VTEIs have a strategic plan with a clear mission, goals and objectives. However, only a third of the administrators and about half of the teachers believed all the VTEIs have a central quality assurance policy making body for student assessment. Closer examination of the distribution of individual scores between administrators in the DTE and administrators in VTEIs shows that 46% of administrators in the DTE compared to only 25% of administrators from VTEIs perceived that there was a central quality assurance policy making body in VTEIs. Nearly two thirds of the administrators from the VTEIs perceived no such body exists. This finding may imply that administrators in the DTE were not aware of the administrative set up in the VTEIs and they must have assumed that if such a body was established in the DTE (BDTVEC Secretariat Division is responsible for quality assurance of the assessment process), it should have also been established in the VTEIs. According to the administrators in the VTEIs, this appears not to be the case.
Table 5.1   Stakeholders’ perceptions on the organisation and management of quality assurance at the VTEIs

<table>
<thead>
<tr>
<th></th>
<th>% of Administrators (n=21)</th>
<th>% of Teachers (n=101)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Agree</td>
<td>Unsure</td>
</tr>
<tr>
<td>VTEIs have a strategic plan with a clear mission, goals and objectives.</td>
<td>81</td>
<td>19</td>
</tr>
<tr>
<td>AD -</td>
<td>69</td>
<td>31</td>
</tr>
<tr>
<td>AI -</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>VTEIs have a central quality assurance policy making body for student assessment.</td>
<td>38</td>
<td>38</td>
</tr>
<tr>
<td>AD -</td>
<td>46</td>
<td>54</td>
</tr>
<tr>
<td>AI -</td>
<td>25</td>
<td>13</td>
</tr>
<tr>
<td>VTEIs have a formal policy to improve quality and maintain standards of student assessment.</td>
<td>67</td>
<td>29</td>
</tr>
<tr>
<td>AD -</td>
<td>54</td>
<td>46</td>
</tr>
<tr>
<td>AI -</td>
<td>88</td>
<td>0</td>
</tr>
</tbody>
</table>

Note: AD- Administrators in DTE (n=13), AI- Administrators in VTEIs (n=8)

The questionnaire data also revealed that two thirds of both groups of respondents believed that all VTEIs have a formal policy to improve quality and maintain standards of assessment. This finding is inconsistent with the interview finding where most administrators and teachers perceived no comprehensive quality assurance system exists in the DTE and the VTEIs (refer to subsection 5.2.1). This inconsistency may be due to the time gap when interviews and survey questionnaires were conducted. The ‘Assessment process and the quality assurance’ guidelines were implemented after the interviews were conducted and before the survey questionnaires were distributed. The survey respondents may have perceived that the guidelines are the formal policy to improve quality of the assessment process.
In all three items, the percentages of ‘unsure’ responses were higher for the administrators compared to teachers. Closer examination of the distribution of individual responses between administrators in the DTE and those in VTEIs showed that in all cases (except one VTEI’s administrator for item 2) the ‘unsure’ responses were made by administrators from the DTE. This may again imply that the DTE administrators were not familiar with the measures taken at institutional level.

**Quality assurance implementation process in VTEIs**

Analysis of the first of the five questionnaire items under this heading (refer to Table 5.2) revealed that more than half of the administrators compared to a third of the teachers believed the management implications of the new quality assurance measures were considered before their adoption in the VTEIs. This may imply that most teachers felt that more effort should be made to ensure management implications should be looked at before the adoption of any quality assurance measures. The data for this item also showed that more teachers were choosing the ‘unsure’ option compared to administrators (53% and 38% respectively) implying that since these measures were formulated in the DTE, most teachers were not involved in the formulation process to make judgement on this item.

The second item in Table 5.2 illustrates that more than a third of the teachers compared to a quarter of the administrators believed that many quality assurance measures were implemented in a haphazard manner with unrealistic time frames. This could imply that teachers as implementers felt they were given insufficient time frames for the implementation of the quality assurance measures.
Table 5.2  Stakeholders’ perceptions on the quality assurance implementation processes (for the assessment process) at the VTEIs

<table>
<thead>
<tr>
<th></th>
<th>% of Administrators (n=21)</th>
<th>% of Teachers (n=101)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Agree</td>
<td>Unsure</td>
</tr>
<tr>
<td>The management implications of the new quality assurance initiatives are considered before their adoption in my institution.</td>
<td>AD -</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td>AI -</td>
<td>63</td>
</tr>
<tr>
<td></td>
<td>AD -</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>AI -</td>
<td>63</td>
</tr>
<tr>
<td>Many quality assurance initiatives are implemented in a haphazard manner with unrealistic time frames.</td>
<td>AD -</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>AI -</td>
<td>25</td>
</tr>
<tr>
<td>The quality assurance initiatives for the assessment process as instructed by the DTE are given full support by administrators and teachers.</td>
<td>AD -</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td>AI -</td>
<td>63</td>
</tr>
<tr>
<td>The quality assurance and control arrangements for the assessment system are clear, rigorous and understood by staff.</td>
<td>AD -</td>
<td>43</td>
</tr>
<tr>
<td></td>
<td>AI -</td>
<td>23</td>
</tr>
<tr>
<td>The quality assurance and control arrangements for the assessment system are clear, rigorous and understood by students.</td>
<td>AD -</td>
<td>43</td>
</tr>
<tr>
<td></td>
<td>AI -</td>
<td>23</td>
</tr>
</tbody>
</table>

Note: AD- Administrators in DTE (n=13), AI- Administrators in VTEIs (n=8)
Half of the teachers and more than a third of the administrators believed that the quality assurance measures for the assessment process as instructed by the DTE were given full support by administrators and teachers in all VTEIs. This could imply that a reasonable proportion of teachers as implementers felt that they had been supportive of the quality assurance measures directed by the DTE although more administrators felt that this was not the case.

Closer examination of the distribution of individual scores between administrators in the DTE and those in the VTEIs showed that about two thirds of administrators from VTEIs believed that their staff had been supportive of the quality assurance measures, however only a quarter of the administrators in the DTE believed this was the case. The administrators from the VTEIs and the teachers’ responses were expected because their jobs are to implement the policy decided by policy makers at the top level. The administrators and teachers, therefore, in a sense had no choice but to give their full support or else might suffer the consequences for not implementing the policy. This finding should be interpreted with caution. It was also noted that almost two thirds of the administrators from the DTE chose the ‘unsure’ option indicating they lacked information regarding this issue, as there were no feedback mechanisms in place.

According to the response to the fourth and fifth items, almost half of both groups of stakeholders perceived that the quality assurance and control arrangements for the assessment system were clear, rigorous and understood by staff and about a third of the respondents for both groups of stakeholders believed the quality assurance and control arrangements for the assessment system were clear, rigorous and understood by students. For the fifth item, a higher percentage of administrators (48%), mostly
administrators from the DTE chose the ‘unsure option’ compared to teachers (40%). This may imply that they were not familiar with the implementation process occurring in the VTEIs and the need for feedback to be relayed to the DTE on the progress of its implementation.

**Quality assurance monitoring and the review process in VTEIs**

The data summarised in Table 5.3 below points to a number of key findings in relation to the quality assurance monitoring and review process in VTEIs. The questionnaire data revealed that more than two thirds of administrators and less than half of teachers believed there was a quality assurance monitoring body for assessment processes in all VTEIs. This could imply that administrators may have perceived that committees established by the DTE in the DTE (Programme Development Evaluation Committees (PDECs)) or VTEIs (academic boards and course teams) were responsible for monitoring and reviewing the quality assurance process. Teachers, on the other hand, may have perceived that since these committees were not effective in monitoring the assessment process, not functioning properly in monitoring such processes and were involved in other responsibilities such as curriculum design, they were not part of the quality assurance monitoring body.
Table 5.3  Stakeholders’ perceptions on the quality assurance monitoring and the review process at the VTEIs

<table>
<thead>
<tr>
<th></th>
<th>% of Administrators (n=21)</th>
<th>% of Teachers (n=101)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Agree</td>
<td>Unsure</td>
</tr>
<tr>
<td>There is no quality assurance monitoring body for the assessment process in VTEIs.</td>
<td>19</td>
<td>10</td>
</tr>
<tr>
<td>Teachers’ feedback is used to evaluate the quality and effectiveness of the student assessments.</td>
<td>81</td>
<td>14</td>
</tr>
<tr>
<td>Students’ and employers’ feedback is used where possible to evaluate the quality and effectiveness of the student assessments.</td>
<td>57</td>
<td>33</td>
</tr>
</tbody>
</table>

Note: AD- Administrators in DTE (n=13), AI- Administrators in VTEIs (n=8)

The data also pointed out that more than three quarters of administrators (81%) and half of the teachers (51%) believed that teachers’ feedback was used to evaluate the quality and effectiveness of the students’ assessments. More than half of the administrators and more than one third of the teachers believed that students’ and employers’ feedback was used where possible to evaluate the quality and effectiveness of the students’ assessments. An explanation might be that administrators probably overstated their assessment about students and employers involvement. The lack of quality assurance mechanisms at the head office level outlined above suggests that they probably had little information upon which they based their assessment about students and employers. This is attributable to the information gap that exists between these two groups of stakeholders, as well as
between the VTEIs and the DTE. A higher percentage of teachers were not sure if teachers (32%), and students and employers feedback (48%) was used in evaluating the quality and effectiveness of the students’ assessments.

**Physical resources at VTEIs**

Physical resources in the context of this study refer to buildings, classrooms, laboratories, workshops, libraries, equipment and facilities in the VTEIs. The responses to the three questionnaire items under this topic are summarised in Table 5.4.

<table>
<thead>
<tr>
<th>Table 5.4</th>
<th>Stakeholders’ perceptions on the physical resources at the VTEIs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>% of Administrators (n=21)</strong></td>
<td><strong>% of Teachers (n=101)</strong></td>
</tr>
<tr>
<td><strong>Agree</strong></td>
<td><strong>Unsure</strong></td>
</tr>
<tr>
<td>There is a system in place to ensure that physical resources for ensuring quality of the assessment process are maintained and updated.</td>
<td>43</td>
</tr>
<tr>
<td>AD</td>
<td>23</td>
</tr>
<tr>
<td>AI</td>
<td>63</td>
</tr>
<tr>
<td>The physical resources for ensuring quality of assessment have been identified.</td>
<td>57</td>
</tr>
<tr>
<td>AD</td>
<td>38</td>
</tr>
<tr>
<td>AI</td>
<td>88</td>
</tr>
<tr>
<td>The physical resources for ensuring quality of assessment are not adequate.</td>
<td>71</td>
</tr>
<tr>
<td>AD</td>
<td>77</td>
</tr>
<tr>
<td>AI</td>
<td>63</td>
</tr>
</tbody>
</table>

*Note: AD- Administrators in DTE (n=13), AI- Administrators in VTEIs (n=8)*
It can be inferred from the questionnaire data that less than half of the administrators and less than a third of teachers believed there was a system in place to ensure that physical resources for ensuring quality of the assessment process in all VTEIs were maintained and updated, implying that there was room for improvement and that this system needs to be properly established.

The questions related to the physical resources at the VTEIs revealed that more than half of the administrators and more than a third of teachers believed the physical resources for ensuring quality of assessment in all VTEIs had been identified. More than two thirds of administrators and more than half of the teachers agreed that the physical resources for ensuring quality of assessment in all VTEIs were not adequate, implying that there is room for improvement in the provision of physical resources. A higher percentage of teachers opted for the ‘unsure’ option for all three items (51%, 49% and 28% respectively) compared to the administrators (29%, 19% and 24% respectively). This could imply that since teachers were not involved in both processes, they had no knowledge as to their existence.

**Stakeholders’ involvement in the quality assurance measures**

A summary of the responses to the three questionnaire items under this topic is presented in Table 5.5. It can be inferred from this data that more than a third of the administrators and about a quarter of the teachers believed that key stakeholders such as employers and teaching staff were well represented in the formulation of VTE quality assurance policies. Almost half of the administrators and more than a third of teachers believed that in the formulation of the VTE quality assurance policies, specialists in the relevant field were invited to make contributions. This
may imply that teachers believed that involvement of employers and teaching staff as well as specialists in the relevant fields should be increased in the formulation of quality assurance measures. Again a higher percentage of respondents, both administrators and teachers, opted for the ‘unsure’ option, implying that most of them were not involved in the process and thus were too unfamiliar with it to give a definite account of stakeholders’ involvement.

Table 5.5  Stakeholders’ involvement in quality assurance measures at the VTEIs

<table>
<thead>
<tr>
<th></th>
<th>Administrators (n=21)</th>
<th>Teachers (n=101)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Agree</td>
<td>Unsure</td>
</tr>
<tr>
<td>The key stakeholders (i.e. employers and teaching staff) are well presented in the formulation of VTE quality assurance policies.</td>
<td>38</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td>AD</td>
<td>AI</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>75</td>
</tr>
<tr>
<td>In the formulation of VTE quality assurance policies, specialists in the relevant field are invited to make contributions.</td>
<td>43</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td>AD</td>
<td>AI</td>
</tr>
<tr>
<td></td>
<td>31</td>
<td>63</td>
</tr>
</tbody>
</table>

Note: AD- Administrators in DTE (n=13), AI- Administrators in VTEIs (n=8)

Further analysis of the findings for these two questionnaire items for the administrators revealed that a higher percentage of administrators from the DTE opted for the ‘unsure’ option for both items (69% and 62%) compared to the administrators in VTEIs (13% and 25% respectively). Again, this may imply that administrators in the DTE may be unfamiliar with this process. This was a surprising
finding, since most of the administrators especially those from the DTE were members of the PDEC, PDEEC and the Principals’ meeting where such decisions would have involved them in some way.

Assessment process quality assurance measures in DTE

Analysis of the three questionnaire items under this heading (refer Table 5.6) revealed a number of important pieces of information related to assessment process quality assurance measures in the DTE.

<p>| Table 5.6  Stakeholders’ perceptions on assessment process quality assurance measures in the DTE |
|---------------------------------------------------------------|---------------------------------------------------------------|
| Administrators (n=21)                                      | Teachers (n=101)                                           |</p>
<table>
<thead>
<tr>
<th>Agree</th>
<th>Unsure</th>
<th>Disagree</th>
<th>Agree</th>
<th>Unsure</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is a formal section in DTE specifically to formulate quality assurance policy of the assessment process.</td>
<td>67 29 5</td>
<td>AD - 54 38 8</td>
<td>57 38 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AD - 88 13 0</td>
<td>AI - 88 13 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Due attention is given to constraints in the planning process of quality assurance initiatives.</td>
<td>38 57 8</td>
<td>AD - 62 31 8</td>
<td>31 61 8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AD - 13 88 0</td>
<td>AI - 13 88 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The decision making style for assuring quality at the DTE level can be described as participative.</td>
<td>53 43 5</td>
<td>AD - 62 31 8</td>
<td>29 57 14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AD - 38 63 0</td>
<td>AI - 38 63 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: AD- Administrators in DTE (n=13), AI- Administrators in VTEIs (n=8)
The data revealed that two thirds of administrators and more than half of teachers mistakenly believed there was a formal Unit in the DTE specifically to formulate quality assurance policy of the assessment process. The Quality Assurance Division was only established in the DTE in September 2006. It was also revealed that about a third of the administrators and teachers believed that due attention was given by the DTE to constraints in the planning process of quality assurance measures. About half of the administrators and less than a third of the teachers perceived the decision making style for assuring quality at the DTE level as participative. The small percentage of teachers who agreed that the decision making style for assuring quality in the DTE is participative implies that teachers believed that this process was carried out in isolation.

The higher percentage of teachers choosing the ‘unsure’ option (38%, 61% and 57% respectively) for the three questionnaire items implies that they were unfamiliar with the process occurring at a higher DTE level. However, an interesting finding was the high percentage of administrators, 29%, 57% and 43% respectively (although not as high as the teachers’ percentages) had no opinion on these three questionnaire items. Again, closer examination of the individual scores between administrators from VTEIs and administrators from the DTE showed a higher percentage of administrators from the VTEIs (88% and 63%) choosing the ‘unsure’ option for the two questionnaire items (attention was given by the DTE to constraints in the planning process of quality assurance initiatives and the participative decision making style for assuring quality at the DTE level). This could imply these institutional administrators were also unfamiliar with the quality assurance processes in the DTE. They were the top management administrators who approved policy
matters but were not involved in the actual formulation of the policy or process even though the policies or processes were to be implemented in their institutions. The findings clearly show that most key players were not aware of the formulation of quality assurance measures in the DTE and the implementers, particularly teachers were not actually involved or consulted in the formulation of quality assurance policies. This process is important if the quality initiatives are to be aligned to support the successful implementation of the quality assurance measures.

This section presented findings on the current quality assurance measures towards ensuring quality of the assessment process in the DTE and the five VTEIs and the ways these measures were formulated. Overall, apart from one VTEI, most did not have comprehensive quality assurance measures. The findings also suggest that the formulation process of the quality assurance measures suffered from a number of shortcomings, while at the same time, highlighted a number of strengths in the process. The next section will present findings that answer the fourth research question.
5.3 The effectiveness of the assessment process quality assurance measures as perceived by the stakeholders

This section presents data on how the two groups of stakeholders, administrators and teachers, perceive the effectiveness of the three quality assurance measures used in VTEIs: the current institutional quality assurance measures, the external moderation system, as well as the ‘Assessment process and quality assurance’ guidelines, which were identified by research question (3) in the previous section (see Section 5.2).

This section is divided into three subsections: the first presents findings regarding the stakeholders’ perceptions on the effectiveness of the current institutional quality assurance measures, the second subsection presents findings about how the stakeholders perceive the effectiveness of the external moderation system and finally in the third subsection, the stakeholders’ perceptions on the effectiveness of the ‘Assessment process and quality assurance’ guidelines are presented.

Figure 5.4 Structure of research question 4
5.3.1 Current institutional quality assurance measures

As mentioned earlier, this subsection will present data of the stakeholders’ perceptions on the current institutional quality assurance measures. Data to answer this part of the research question was generated by semi-structured interviews and thus are reported as qualitative data only. The interview data were used to elicit the range of stakeholders’ perceptions about the effectiveness of the current institutional quality assurance measures. This subsection was not included in the survey as the data obtained from the semi-structured interviews were deemed sufficient to answer this part of the research question. The interview questions related to this part of the research question are in Section C of the interview guide for teachers (Appendix G) and Section B of the interview guide for administrators (Appendix H). As a reminder, the perceptions of four key administrators, five institutional level administrators and 11 teachers, were sought to provide insight into this research question.

As described in Section 5.2, interviewees from Institution A expressed their satisfaction with their current arrangement in ensuring the quality of the assessment process in their institution. Interviewees from Institution A acknowledged that the procedures that were established in their institution have helped them to achieve consistency in preparing assessment papers and tasks. These procedures, they added, helped them to prepare the assessment papers and tasks well in advance as scheduled by the Examination Unit. It also ensures that teachers cover the syllabus as required and they believed all these strategies have helped them to ensure the quality of their assessment process. As commented by a teacher from Institution A:
So far I am satisfied with the way this is being implemented. (TCH05.1)

However, the opposite can be said for the administrators and teachers in the other four institutions (Institutions B, C, D and E) where there are no institutional procedures for ensuring the quality of the assessment process. All interviewees in these institutions agreed that the absence of a structured comprehensive and/or institutional quality assurance system in their institutions have affected the quality of the assessment process. A number of interviewees mentioned that without a comprehensive system, their ability to judge whether what they taught and assessed was of appropriate quality were questionable. Some teachers were aware that they cannot compare the standard of their students’ achievement and the programmes they offer with students’ achievement and programmes in other VTEIs. A few interviewees also expressed their reservations regarding the students’ results. Some believed that currently students’ results were too teacher dependent, in that, where a teacher is too lenient giving marks, students will achieve good results. They felt that without a comprehensive quality assurance system, students’ results will not be a true reflection of the students’ knowledge, ability and skills. These issues were highlighted in the following comments:

The current strategy is not working, is not effective in ensuring quality. Let us take mathematics for example, two groups of students, taught by two instructors, one instructor prepares his own assessment paper, the other instructor prepares another. The standard will not be the same even though the programme, the unit is the same. (TCH09.4)

Some teachers questioned the validity and integrity of the assessment decision in their institution. One teacher said:
With the system I have seen, my hair nearly fell out. Some people change marks all the time, it’s not valid. I was at a meeting, where five students failed out of 14 and the next year, I went into NTC2 and they were there in my class. When I went to the meeting at the end of NTC3, they failed. What were they doing there? (TCH02.4)

The absence of a structured comprehensive quality assurance system caused some teachers to question the expertise and the judgement of others in judging their work.

A comment from a teacher and perhaps a more personal one:

… a case where six of my students failed. Somebody was questioning it. [ ] They called all instructors for that group to a meeting. They wanted to see my work. I took it but it was never opened. I told them, they were not qualified. I didn’t mind you looking at mine, but show me what you have first, all of you. But if they have the right people, the right procedure, they should not have this problem. (TCH11.5)

A few interviewees said the absence of a structured comprehensive quality assurance system and guidelines in ensuring quality of the assessment system has created confusion as to the appropriate methods and approaches of assessing students, the types of assessment, the appropriate ways and level of difficulty in setting question papers and assessment tasks for the different levels of programmes.

In exploring with one teacher the ‘extent of the confusion’ the following comment was made:

Before they went to the oral presentations, I called everyone involved to discuss what they were supposed to do, what they were supposed to assess. What happened was that, these assessors scrutinized the students’ products, which they were not supposed to do. They were there to assess how the students were marketing their product. The product itself had already been assessed through other means. They did not understand what they were at the presentations for. (TCH11.5)

A summary of the findings of the study on the effectiveness of the current institutional measures are presented in Figure 5.5.
5.3.2 External moderation system

Semi-structured interviews and survey questionnaire techniques were used as the data collection method to answer this part of research question (4). The interviews were used to explore the range of stakeholders’ perceptions on the effectiveness of the external moderation system and also in designing the survey questionnaire. The interview questions related to this part of the research question are in Section E of the interview guide for teachers (Appendix G) and Section D of the interview guide for administrators (Appendix H). The survey questionnaire was used mainly to survey the perception of a larger stakeholder population, about several issues identified during the interviews, in order to enable generalisations to be made about
the five VTEIs being studied. The survey questions related to this part of the research question are in Section C2 of the survey questionnaire (Appendix I). For this part of the research question, the analysis and reporting of the questionnaire data are based on the two groups of stakeholders’ views, the administrators and the teachers.

The interview data are reported by combining the two groups of stakeholders’ views, first to give an overview and only when applicable, specific comments are presented from the administrators and teachers.

Overall, the findings revealed that most stakeholders, both administrators and teachers were divided on the issue of the strengths and weaknesses of the external moderation system. Even though many of them discussed the strengths of the external moderation system, more administrators and teachers described the weaknesses of the system in more detail. The findings on the strengths and the weaknesses of the external moderation system will be presented in turn.

In sampling a larger population of both groups of stakeholders, the questionnaire data revealed the following strengths of the external moderation system.
Table 5.7 Number and percent of responses of administrators and teachers on the strengths of using the external moderation system

<table>
<thead>
<tr>
<th></th>
<th>Administrators (n=21)</th>
<th>Teachers (n=94)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of responses (%)</td>
<td>Number of responses (%)</td>
</tr>
<tr>
<td>International expertise</td>
<td>15 (71)</td>
<td>57 (61)</td>
</tr>
<tr>
<td>Experience and knowledge</td>
<td>12 (57)</td>
<td>70 (74)</td>
</tr>
<tr>
<td>Neutral observer</td>
<td>10 (48)</td>
<td>48 (51)</td>
</tr>
</tbody>
</table>

Note: The total number of responses in the columns do not equal the number of respondents (or 100%) because respondents could give more than one response.

As can be seen in Table 5.7, more than two thirds of the administrators believed that external moderators’ international expertise was the main strength of the external moderation system, followed by moderators’ knowledge and experience (57%) and their neutrality (48%). However, more than two thirds of teachers saw moderators’ knowledge and experience as the main strength of the external moderation system. This was followed by international expertise (61%) and external moderators’ neutrality (51%). This finding may imply that administrators are more concerned with overseas recognition of the VTE programmes and their relevancy and of programmes being up to international standard. Teachers on the other hand, view moderators as people who have the knowledge and experience to advise them on ways to improve the programmes they offer. These findings were consistent with findings from the interviews.
As mentioned earlier, stakeholders focussed more on the weaknesses than the strengths of the external moderation system. The findings revealed ten factors which stakeholders perceived to be the weaknesses of the current external moderation system. These findings are presented in Table 5.8.

<table>
<thead>
<tr>
<th></th>
<th>Administrators (n=21)</th>
<th>Teachers (n=94)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of responses (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Timing &amp; the short duration of visit</td>
<td>19 (90)</td>
<td>61 (65)</td>
</tr>
<tr>
<td>High cost</td>
<td>14 (67)</td>
<td>59 (63)</td>
</tr>
<tr>
<td>No procedure to check on moderators’ effectiveness</td>
<td>11 (52)</td>
<td>42 (45)</td>
</tr>
<tr>
<td>No action taken on external moderators’ report</td>
<td>10 (48)</td>
<td>46 (49)</td>
</tr>
<tr>
<td>Moderators’ lack of local knowledge</td>
<td>8 (38)</td>
<td>40 (43)</td>
</tr>
<tr>
<td>Focusing too much on assessment aspects</td>
<td>5 (24)</td>
<td>25 (27)</td>
</tr>
<tr>
<td>Staff only reported good aspects</td>
<td>4 (19)</td>
<td>13 (14)</td>
</tr>
<tr>
<td>Moderators only reported good aspects</td>
<td>3 (14)</td>
<td>17 (18)</td>
</tr>
<tr>
<td>Lack of transparency in moderators’ reports</td>
<td>3 (14)</td>
<td>20 (21)</td>
</tr>
<tr>
<td>Unclear and insufficient roles</td>
<td>2 (10)</td>
<td>23 (24)</td>
</tr>
<tr>
<td>Moderators actually learn from us</td>
<td>1 (5)</td>
<td>14 (15)</td>
</tr>
<tr>
<td>Moderators’ lack of professionalism</td>
<td>0 (0)</td>
<td>6 (6)</td>
</tr>
</tbody>
</table>

Note: The total number of responses in the columns do not equal the number of respondents (or 100%) because respondents could give more than one response.
As illustrated in Table 5.8, the administrators and teachers agreed on the six top weaknesses. The most frequently mentioned weaknesses of the current external moderation system by both groups of stakeholders are the timing and duration of the external moderators’ visits and the cost of using the system (above 60% for both groups of respondents). This quantitative finding was in agreement with the interview data where a large number of interviewees cited the duration and timing of the moderators’ visits as the main weaknesses of the current system. The interviewees commented that some moderators were required to moderate several programmes in a number of VTEIs during each visit which may last for seven to ten days. They felt that such arrangements were inappropriate. A number of interviewees believed that such duration was not long enough for the moderators to make a thorough check of the students’ assessments and to discuss issues with the teachers and administrators. A few interviewees were not happy with the timing of the visit which usually occurred after the examinations were held. One administrator mentioned:

How can he make an impression or judgement in one to two days? He doesn’t know what really goes on, you know. (ADM05.3)

Another teacher said:

His duration here is not sufficient. Last time, it was only a one day visit to this school and he lost his way, and in total, he only spent two hours here. I don’t think it’s effective. Furthermore, they came after the exams. Maybe it would be useful for future groups, to improve those groups. (TCH01.2)

Interesting comments were made by two teachers regarding the issue of the cost of using the external moderation system. They believed it should not be an issue for the DTE and instead, they felt that it should be looked at as an investment, in terms of the quality it will ensure. One of the teachers explained:
The way I look at it, they should be given ample time to look at the assessment, we are always concerned with the budgetary constraints. We are not allowed to keep them for long because we have to pay them. DTE tries to keep their visits to a minimum. This will not give you a true picture. (TCH10.1)

This view was consistent with Blackmur’s (2004) findings that there is a widespread consensus that the benefits of at least some forms of external quality assurance exceed the costs, although he noted this is a matter of faith. In understanding the relationship between the external moderation system and its high cost, Laughton’s (2003) proposition that as education institutions begin to take the quality review process seriously, they devote more time and resources to preparing for review, thus increasing the cost can be considered.

The next most frequently mentioned weaknesses in the external moderation system were the absence of procedures to check on the external moderation systems effectiveness, the lack of action after external moderators’ reports, moderators’ lack knowledge of the local context and over emphasis on assessment aspects. Table 5.8 shows that between a half and a quarter of the administrators and teachers perceived these issues as weaknesses of the system.

On the issue of the absence of procedures to check on the external moderation system’s effectiveness, it was argued that procedures and guidelines need to be established to ensure the external moderation system works as the institutions and the DTE intended. This was pointed out in this teacher’s comment:

Are they doing their job? How do we know they are helping us? How do we know they are assisting us in developing our programme? How do you make a basis for this judgement? None. You are basing it on their report. Who is going to make the decision that they are doing their job? Usually they just report everything is o.k. He should not just rely on what the staff inform him. He has to look at evidence. Not just based on verbal information. They just sit there, in a room and listen. (TCH15.1)
The interviews revealed five of the nine administrators and eight of the eleven teachers highlighted the issue of the lack of action after external moderators’ reports. They felt that the ineffectiveness of the moderation system arises when moderators’ recommendations are not acted upon. An administrator commented:

The external moderators were making remarks that the department needs certain equipment. He commented repeatedly over several years, but still there is no equipment. Maybe we are too ignorant, maybe it is too difficult to get the funds to buy these materials. How can the students finish the course without the equipment? It makes the external moderation ineffective. The moderator’s recommendation, it is just a note on the paper without any action being taken. (ADM04.2)

In justifying their view for suggesting moderators’ lack of knowledge of the local context as a weakness of the system, a small number of interviewees felt that external moderators must familiarise themselves with the local context, in terms of bureaucracy and funding situations for them to make informed judgements and recommendations. An administrator said in an interview:

They only come for a short period of time, they can’t judge people and what the college established in 20 or 30 years within one hour, they can’t judge. They don’t know our weaknesses in term of bureaucracy, our budget constraints. What they only know is you need this, you need this, you should do this, and you shouldn’t do this, without taking into consideration factors affecting our institution. (ADM03.1)

These views was consistent with Harvey’s (2000) findings that reviewers rarely have detailed documentation nor fully observe what goes on in the educational institution under review. According to him, even if during the short duration of their visit, reviewers have access to appropriate documentation which allows them some form of cross-checking and the opportunity to observe facilities and practices first-hand, they tend to see and assimilate only small aspects of the whole institutional operation.
Regarding the issue of the moderators’ over emphasis on the assessment aspects, two administrators and a teacher pointed out that the role of the external moderators should not be limited to checking assessment papers only. They felt that the external moderators should also be involved in the ‘examination process, before, during and after the examination’. Some even suggested the moderators play the role of school inspectorate. However, this view was not shared by a few other interviewees. One teacher had the view that the external moderators were ‘given too heavy a workload’ which they felt led to the external moderators making ‘short cuts in their moderation process’. This was reflected in the following comment:

Some moderators have to moderate many programmes, for example, in the construction department, they have four programmes; geomantic, property management, construction and interior architecture. It’s very hard to get one moderator to supervise all. I mean of course, they are very good. However, the moderator reports were the same for all the programmes. It was a duplicate of all the programmes. I don’t think the different programmes have the same issues. (ADM07)

An administrator blamed the departments in the institutions when this issue was brought up during the interview, commenting that:

Some departments, on the day the moderator arrived, a pile of work, was given to the moderator. Some departments gave it to the moderator to go through, if he had the time. I’m just wondering how much the moderator can do because, don’t forget, the next day he had to be at the college to write a report. I don’t think the moderator can thoroughly check. (ADM07)

The third group and the least mentioned weaknesses of the external moderation system were that staff and moderators report only the good aspects, the lack of transparency in the external moderators’ reports, moderators’ unclear and insufficient roles, that the moderators are the ones actually learning from Brunei’s VTE, and the moderators’ lack of professionalism.
In summary, this subsection identified and presented the perceptions of administrators and teachers on the three issues they perceived as the strengths and twelve issues they perceived as the weaknesses of the external moderation system. Overall, the findings from the questionnaire showed considerable consistency between both groups of stakeholders. It also revealed that for almost every strength and weakness, the survey questionnaire findings were consistent with the interview findings. The next subsection looks at the stakeholders’ perceptions about the effectiveness of the ‘Assessment process and quality assurance’ guidelines.

5.3.3 The ‘Assessment process and quality assurance’ guidelines

The third quality assurance measure identified in the previous section was the ‘Assessment process and quality assurance’ guidelines. This part of Section 5.3.1 will present the stakeholders’ perceptions about the potential effectiveness of these guidelines. The interview questions related to this part of the research question are in Section D of the interview guide for teachers (Appendix G) and Section C of the interview guide for administrators (Appendix H). The survey questions related to this part of the research question (4) are in Section C1 of the survey questionnaire (Appendix I). The findings from both data collection techniques were analysed and are reported concurrently by using both groups of stakeholders’ perceptions as well as using the findings from both data collection techniques to give the whole picture.

The findings, drawn from both semi structured interviews and the survey, revealed that the majority of stakeholders, both administrators and teachers, agreed that the implementation of the guidelines would ensure consistency in assessment practices in all VTEIs. They perceived that the guidelines will provide a set of practice and a
platform which can be followed by all teachers in all VTEIs to ensure that the standard as well as the quality of assessment is equivalent and consistent throughout all VTEIs. The stakeholders also perceived the guidelines as the first document procedure for quality assurance amongst VTEIs which were clear, well written, standardised, comprehensive, and easily understandable. They also believed these guidelines provide ‘methods for ensuring validity and reliability of assessment process’ which suit local standards and it comes along with suggested strategies.

Respondents also believe that the guidelines are a useful document and reference material which provide ‘paper evidence of work done by teaching staff regarding assessments’. Guidelines would also help maintain quality of graduates, consistency of standard and increased the value of awards. Respondents also stressed their importance in ensuring fair assessment practices which will benefit the students and enhance and support the existing practices that have been carried out. Both groups of stakeholders felt that the guidelines also laid out roles and responsibilities of key personnel.

The importance of the ‘Assessment process and quality assurance’ guidelines were highlighted by an administrator when she pointed out that:

We felt that by introducing a set procedure for internal verification everybody could follow, we can come to a more consistent set of practices. When it comes to setting internal assessments and making sure that they are of proven and acceptable quality, because all this time we really rely on the instructors to set the paper, to deliver the instrument, the test, the phase tests to the students, nobody actually monitors. It is one step to making sure that quality is guaranteed. (ADM02)

The findings from both data collection techniques revealed that even though many of the stakeholders discussed the strengths of the guidelines, some administrators
and teachers appeared sceptical about their likely effectiveness. The perceived weaknesses highlighted by both groups of stakeholders included the following: the lack of accountability processes, the lack of qualified, competent, experienced staff and subject specialists to carry out the various verification and moderation processes, issues of different assessment strategies even for units with the same unit value, lack of resource, guidelines not suitable for all programmes in BDTVEC, teachers with heavy teaching loads ‘may have the tendency to haphazardly go over the examination papers and sign without actually suggesting significant revision’.

Some respondents felt that the guidelines are too dependent on good leadership, true commitment, support and hard work of both administrators and teachers. Others perceived the implementation of the guidelines was made without a thorough feasibility study of the system, that there was no monitoring process, had a short time frame for its implementation, and teachers had limited exposure to the guidelines, with some teachers even unaware of the guidelines.

A few of the interviewees believed the processes listed in the guidelines are all internal processes within the institution and they felt that external aspects of moderation and verification should also be included in the guidelines. These interviewees felt that employers should be given a role in the process.

I think there are still shortcomings in the guidelines. Currently, the programmes we offer are only assessed by the staff, internally, not externally. The quality, does it match the requirements of the industry. I want somebody to look at the projects, the practicals and the tests. People from industry, to look at the process, to ensure they are really following the skill aspects currently used in industry. Employers can be the assessors. (ADM06.4)

One teacher expressed her reservations about colleagues in her department carrying out moderation and verification. She felt that experts or specifically assigned
individuals or groups should be appointed to carry out the exercise. Some interviewees felt that the system still lacks the people with the relevant expertise to implement the guidelines. Others felt that the guidelines were not detailed enough, were subjective and open to personal interpretation.

I think there is no transparency, only general guidelines, they need to be more specific. They are too general. They should have exemplars. They should be provided with samples of NTC2 papers, NTC3 papers and so on. (TCH06.4)

However, a small number of the interviewees were not supportive of the guidelines. Several issues were raised to justify their views. An administrator mentioned that the consistency that will be achieved in using the guidelines will not always be good for the VTE system as it will affect institutions’ competitiveness and attractiveness.

I am sure that if we make it consistent, we lose the competitiveness. For example, like the Science College, everybody wants to go there, so students try to get five A’s, otherwise you won’t get in. It is very competitive. As a student, if they see that MKJB has a higher standard, they will try to apply there. Actually, it is good for the institutions. So our standard can get better and better. (ADM04.1)

Some teachers perceived that the guidelines will create more paperwork. Lack of staff was also raised as an issue in the implementation of the guidelines. They also recommended staff other than the current ones to implement the guidelines.

They are creating more paperwork, you know, we are getting loaded with all this paperwork. Are you going to get a different guy to do it or are you going to have the existing staff do this? Oooooo, if it’s the existing staff, that is the part that makes this whole process die. I agree, I mean, it’s a good idea to have that. But just make sure you don’t push us too much paper work because it’s really painful when there is too much. (TCH03.5)

One teacher perceived that due to the small size of his institution, both in terms of the programmes offered and the resources available that it would be quite impossible for them to implement the proposal.
Figure 5.6 summarises the findings of stakeholders’ perceptions of the potential effectiveness of the ‘Assessment process and quality assurance’ guidelines.

**Figure 5.6** Summary of the potential strengths and weaknesses of the ‘Assessment process and quality assurance’ guidelines

<table>
<thead>
<tr>
<th>Perceived Strengths</th>
<th>Perceived weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>• First comprehensive documented procedure</td>
<td>• Performed internally not externally</td>
</tr>
<tr>
<td>• Clear, well written, and easily understood</td>
<td>• Lack of employer involvement</td>
</tr>
<tr>
<td>• Ensures consistency</td>
<td>• Carried out by colleagues</td>
</tr>
<tr>
<td>• Provides platform that can be followed by all VTEIs</td>
<td>• Not detailed enough, subjective and open to personal interpretation</td>
</tr>
<tr>
<td>• Suitable for local standards and context</td>
<td>• Affects institutions’ attractiveness and competitiveness</td>
</tr>
<tr>
<td>• Enhances and supports existing practices</td>
<td>• Increases paperwork</td>
</tr>
<tr>
<td>• Roles and responsibilities laid out</td>
<td>• Lack of qualified, competent and experienced manpower</td>
</tr>
<tr>
<td>• Involved of a number of people in assessment process</td>
<td>• Dependent on good leadership, commitment, support and hard work of administrators and staff</td>
</tr>
<tr>
<td>• Suit local standards</td>
<td>• No feasibility and efficiency study</td>
</tr>
<tr>
<td>• Provides paper evidence of work from teaching staff regarding assessments</td>
<td>• No monitoring process</td>
</tr>
<tr>
<td>• Involves several people to write the final assessment papers</td>
<td>• Lack of accountability process</td>
</tr>
<tr>
<td>• Enhances and supports the existing practices</td>
<td>• Lack of resources</td>
</tr>
<tr>
<td></td>
<td>• Guidelines not suitable for all programmes in BDTVEC</td>
</tr>
<tr>
<td></td>
<td>• Too dependent on good leadership, true commitment, support and hard work of everyone</td>
</tr>
<tr>
<td></td>
<td>• Unsuitable for implementation in small institutions</td>
</tr>
</tbody>
</table>
This section presented findings from the semi-structured interviews and the survey questionnaire about the way stakeholders perceive the effectiveness of the three quality assurance measures currently in use in the DTE and the five VTEIs: the current institutional initiatives, the external moderation system and the ‘Assessment process and quality assurance’ guidelines. The next section will present findings on stakeholders’ recommendations on improving these measures.

5.4 Stakeholders’ recommendations for improving the current quality assurance measures

This section explores administrators and teachers recommendations about ways to improve the current quality assurance measures. This section is divided into three subsections. Each subsection will present the findings about one of the three major recommendations outlined in Figure 5.7. Section 5.4.1 presents the findings on the monitoring of the quality assurance measures. Section 5.4.2 presents the findings regarding the recommendations on the external moderation system, and recommendations about the ‘Assessment process and quality assurance’ guidelines will be presented in Section 5.4.3.
Research Question 5: What recommendations do the stakeholders have to improve the current quality measures?

5.4.1 Monitoring of quality assurance measures

A major recommendation made by the stakeholders on ways to improve the current quality assurance measures was the issue of monitoring the quality assurance measures being implemented by the VTEIs. The questionnaire data revealed that both administrators and teachers highly recommended (85% and 88% respectively) an external monitoring process to be carried out with the VTEIs, implying both groups of stakeholders were in agreement that external monitoring is an important and necessary aspect of a quality assurance system. This finding from the survey questionnaire was consistent with findings from the interviews. Stakeholders acknowledged that there is no provision for monitoring the current strategies in all VTEIs.

The interviews revealed that stakeholders believed monitoring of the current quality assurance measures is important in ‘safeguarding’ the quality of assessment. They believed that mechanisms and procedures on quality assurance monitoring activity
should be put in place and these mechanisms and procedures should be communicated to all involved in the process. A senior administrator commented:

I know how the system works, but I am not very comfortable with it, so that’s why I prefer to have this formalised, quality assurance system. It is in our strategic plan. We have to make sure that the system is implemented fully by all the instructors. If we have a system and we don’t monitor it, there is no point. Even before we implement the system itself, we must have mechanisms in place that say, o.k. this is the quality assurance that we are going to adopt, this is our guide on how we monitor it, this is the document or whatever it is. (ADM01)

Most interviewees acknowledged that the guidelines detail the procedure for monitoring private providers but do not mention any monitoring in the VTEIs under the DTE. A large numbers of interviewees, both administrators and teachers, recommended the monitoring process to cover both public and private training providers. They felt the existing procedure for application to offer programmes is ‘just a paper work exercise’ because there is no inspection of facilities or equipment, and no check on staff availability is conducted.

… if you look at it, if you think about it, if we dare to admit it, we should be doing that even with our own institutions, but we have not got there yet. Not only these, but to the extent of the actual inspection, to make sure the resources are there, the staff are there, to that extent. I mean, we send in an external verifier with a dual purpose, they go in to inspect the place, their facilities, their resources, and their procedure. What I am trying to say is that what we are doing with the BDTVEC approved centres, we should be doing with our institutions. (ADM02)

Although a majority of the stakeholders indicated their support for monitoring, most were unsure about what type of monitoring should be used. One administrator, in highlighting her support for a stricter type of monitoring, the type currently practiced by the Department of Inspectorate, Ministry of Education, said:
It is good if they can monitor us. Humans tend to fluctuate in their work performance. I don’t know how the Inspectorate Department conducts its inspections in secondary schools. If they make visits, it makes you do your work properly. You don’t know when they will come, they just pop in, and at least that means you are always ready. I think that will work best. I prefer the strict inspection like the Inspectorate Department does now. (ADM06.4)

Most teachers and a few administrators preferred to have a more flexible approach to monitoring, which would occur in stages, reducing the intensity as progress is achieved by the institutions. The possible involvement of different levels of authority to monitor the quality of the assessment process was also raised by administrators and teachers.

… it is very important to have it top to bottom. (TCH05.3)

Our council is at a different level of authority, different roles, so their monitoring is just an overview of all the institutions, and not so much detail of the particular programmes. (ADM01)

The issue of the most appropriate types of monitoring of the quality assurance system for the Brunei VTE was explored further during this study. The findings revealed a range of stakeholders’ suggestions on the type of monitoring perceived as effective to the Brunei VTE situation. These findings are presented in Table 5.9.
Table 5.9 The type of monitoring perceived as effective in ensuring quality of the assessment process

<table>
<thead>
<tr>
<th>Type of monitoring</th>
<th>Administrators (n=18)</th>
<th>Teachers (n=93)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number (%)</td>
<td>Number (%)</td>
</tr>
<tr>
<td>External moderators</td>
<td>17 (94)</td>
<td>65 (70)</td>
</tr>
<tr>
<td>Internal institution monitoring</td>
<td>14 (78)</td>
<td>40 (43)</td>
</tr>
<tr>
<td>Quality Assurance Unit in the DTE</td>
<td>12 (67)</td>
<td>33 (35)</td>
</tr>
<tr>
<td>Peer review (between institutions)</td>
<td>12 (67)</td>
<td>30 (32)</td>
</tr>
<tr>
<td>Coordinator in the DTE</td>
<td>8 (44)</td>
<td>25 (27)</td>
</tr>
<tr>
<td>Programme Development Executive Committee</td>
<td>7 (39)</td>
<td>37 (40)</td>
</tr>
<tr>
<td>Assessment Unit in the DTE</td>
<td>6 (33)</td>
<td>35 (38)</td>
</tr>
</tbody>
</table>

Note: The total number of responses in the columns do not equal the number of respondents (or 100%) because respondents could give more than one response.

As presented in Table 5.9, the findings revealed seven types of monitoring that stakeholders perceived as effective for Brunei VTE. More administrators than teachers recommended monitoring by external moderators, internal institution monitoring, a Quality Assurance Unit in the DTE, peer reviews, and coordinators in the DTE. In contrast, a higher percentage of teachers compared to administrators perceived that PDECs and an Assessment Unit in the DTE would be effective types of monitoring quality of the assessment process. The findings, in general also indicate that overall teachers were less supportive compared to administrators in having the monitoring process conducted.
The most frequently mentioned type of monitoring was the external moderation system. The findings revealed that almost all administrators and two thirds of teachers believed the external moderation system is the most effective type of monitoring in ensuring the quality of the assessment process. In contrast, the interviews revealed a small number of interviewees, mostly administrators agreeing that the current external moderation system as the most effective. The inconsistency between the interview and survey questionnaire findings may be due to the absence of choices or comparison for the interviewees as offered in the survey questionnaire where respondents were given seven types of monitoring to choose from.

The higher percentage of administrators compared to teachers choosing the external moderation system as the type of monitoring stakeholders perceive as important implies that administrators as initiators of the external moderation system have more confidence in the system. The confidence of administrators in the external moderation system is reflected in this quote:

External moderation is o.k. It depends on the areas or departments where it is being carried out. If the departments and external moderators are doing their job, we don’t need other options. (ADM06.4)

Teachers, on the other hand, being implementers, who are directly involved with the process of moderation and have first hand experience with the system were a bit sceptical.

As illustrated in Table 5.9, around two thirds of the administrators and about a third to half of the teachers believed that internal institution monitoring, a Quality Assurance Unit in the DTE and peer review were the next three most effective types of monitoring for ensuring the quality of the assessment process. In suggesting an
Examination Unit be established or an Examination Officer to be appointed to look after quality assurance in the VTEIs, some interviewees, both administrators and teachers, stressed the importance of internal evaluation compared to external evaluation. They felt that whoever was appointed as the Examination Officer in a VTEI should only concentrate on this task and not be given other responsibilities, as they felt that the present strategy was not working effectively due to the other various responsibilities the Examination Officer has. A teacher pointed out:

You need to have a special person to do it, a specifically appointed examination officer. You cannot ask the existing people. The reason I say that is because they are all busy. We submit our instructor record books once every three months. It is a very good monitoring idea, but he doesn’t have time to look at them and we only get it back after few weeks. This defeats the purpose. (TCH03.5)

One administrator and two teachers believed Examination Officers should be cross-checking across departments within the institution. They also believed students’ results can easily be verified and justified by having such an arrangement.

On the issue of monitoring by a Quality Assurance Unit, interviewees foresee that the staff in this Unit should have the overall responsibility on all the work related to quality assurance and make sure all VTEIs line up to ‘DTE expectations’. A senior administrator informed the researcher that the term of reference for the Unit has been prepared and that the Unit will be responsible for producing quality manuals, quality procedures, monitoring, and other general issues related to quality assurance. However, a small number of interviewees, mainly teachers cautioned the move to establish a Unit in the DTE to look after quality assurance issues. They felt that this unit should be an independent entity and not be responsible to other units such as the Programme Development Section (PDS) or the Programme Development Executive Committees (PDECs).
In recommending peer review or ‘inter-institutions’ to monitor the quality of the assessment process, some interviewees felt that VTEIs have the required experts to carry out such activities. A teacher commented:

I think that will be much better. We can share expertise. At the moment, MTSSR has the XXX programme, we have the XXX programme. You cannot say our students are good compared to their students because our questions are not standardised. Why don’t we share teaching notes, monitor each other and everything else. Then only we can standardise the assessments. Then only our certificates can be equivalent. At the moment, if my students get distinctions, and their students get credits, we cannot say that my students were better than them. Maybe my questions were easier. (TCH04.2)

Teachers also believed peer reviews will lead to teachers sharing their knowledge and expertise with each other as well as lead to consistent and standardised assessments.

### 5.4.2 The external moderation system

Section 5.3.2 presented a range of stakeholders’ perceptions on the effectiveness of the external moderation system. In this subsection, stakeholders’ recommendations on the improvement of the system are presented. The use of both the data collection techniques were able to elicit various recommendations that stakeholders perceive can improve the effectiveness of the system. Section E of the interview guide for teachers (Appendix G), Section D of the interview guide for administrators (Appendix H) and Section C2 of the survey questionnaire (Appendix I) are related to this part of the research question.

The interview data reveals that most of the administrators believed the ineffectiveness of the system is not the fault of the external moderators or the system of external moderation. Administrators believed that the DTE and its VTEIs should
find ways to improve and increase the effectiveness of the existing external moderation system. They also suggested communication channels be set up for the various parties involved in the quality assurance process and that the VTEIs provide action plans outlining ways to solve or minimise the problems mentioned in the external moderators’ reports. Other suggestions included setting up a mechanism that can channel recommendations made by the external moderators to the appropriate parties.

How can we improve? When external moderators leave, they give us reports. We read and file them and we send them to the principals. We tell them, you look at this page, this paragraph, and do something about it. We request institutions to actually submit action plans to us, referring to the external moderator reports. And on DTE’s side, if there is anything to do with staffing, then we will highlight this to personnel or HRD, and see what they can do about it? Otherwise the moderators come, the moderators go, the reports come, they get read by somebody and they get filed. We are not sure what is happening. The next year, the same cycle happens again. (ADM02)

About half of the teachers interviewed also agreed with the administrators that the ineffectiveness of the external moderation system is not due to the system itself. However, they disagreed with the administrators’ suggestions that action and improvements should be made by teachers and their VTEIs. Some teachers believed that the system can only be improved by the DTE making sure appropriate action is taken by them upon receiving comments from the external moderators. This issue was reflected in a teacher’s comment:

Actually the moderators are not the ones who solve the problems, they just write the reports. DTE is the one who should solve and deal with these problems, the ones who should take action because external moderators are really good in observing and giving feedback. Only if they take action will the problem be solved. Since the comments are there year after year, it means no action has been taken. (TCH09.4)
Another recommendation from a small number of administrators and teachers was changing the role of external moderators to focus more on aspects of moderating the internal moderators and to act as auditors for the quality assurance system.

What the external moderators should be doing is just ensuring the consistency of the internal moderators. The external moderators do not have to be specialised people in certain areas. What we need is for them to be specialised in moderation, because I know in the U.K., they have institutions to train moderators. So get these people to look at the internal moderators in Brunei. (TCH11.5)

We can review their terms of reference. Maybe in the future, when we have a quality assurance system, we will look at different kinds of external moderators. Maybe we call them external auditors, to audit whether the institutions have really complied with the quality assurance system. (ADM01)

Whether the external moderation system should be continued or replaced, the questionnaire revealed about half of the respondents (57% of the administrators and 48% of the teachers) agreed that the present arrangement of using external moderators should be continued. In contrast, the interview data revealed that the majority of the interviewees agreed the external moderators system should be discontinued or replaced. Only a small number of interviewees agreed that the system should be continued. The disagreement in the findings from the two data collection techniques might be due to the option in the questionnaire item regarding this issue (see Appendix I: Survey questionnaire, Section C2) in which respondents were given the flexibility of choosing a ‘depends’ option rather than a ‘yes’ or a ‘no’ option, and 43% of administrators and 38% of teachers chose this option.

The qualitative findings illustrate the range of reasons stakeholders gave to justify their choice to replace the system. About half of the interviewees, both administrators and teachers, felt that the external moderation system has no impact on VTE students applying to overseas higher institutions to further their studies.
They stressed that even without the system, graduates from VTEIs were offered places to study overseas. Two teachers felt that employers did not view those VTEIs having the external moderation system as an added advantage for their students to be offered jobs. A few comments on this issue:

I don’t believe institutions, overseas, think about whether the course was moderated externally. If someone has the pre-requisite qualifications, then they will be accepted. It’s bums on seats. Money! Universities are desperate, it’s so competitive. (TCH02.4)

Employers here, they don’t ask whether we have moderators or not, normally they will just employ our students. Of course they have taken our students for work placement so they know our students. They have previous experience with our students. They will just look at the students’ certificate. I don’t think they even care whether we have external moderators or not. (ADM07)

A small number of interviewees, both administrators and teachers, although agreeing that the external moderation system should be discontinued, cautioned against moving too quickly, with one administrator commenting:

I think that would be a decision that has to be really thought out carefully. Thought and discussion have to go into it because basically once we let it go, that’s it. We have to be sure that we are ready to let go of the external moderators. And I must admit, till now we haven’t really got to that stage because there are lots of things we are still trying to tidy up. (ADM02)

A few stakeholders, both administrators and teachers, felt that such a move should only be made once ‘a formal quality assurance system’ and a ‘quality assurance or an inspectorate unit’ is established in the DTE.

Can we do away with external moderation? If and when we have a better alternative. Why not? (TCH05.1)

Some institutional administrators mentioned that they have voiced their suggestions to a higher authority for the establishment of an ‘Inspectorate Unit (technical), whether in the DTE or under the Department of Inspectorate’, responsible for
monitoring aspects of quality assurance. A few interviewees proposed the introduction of other quality assurance mechanisms such as ISO for the BDTVEC.

The findings from the survey questionnaire about whether there are enough local moderators to replace the existing overseas external moderators, revealed only about a third of the administrators and teachers believed that the DTE and its VTEIs have enough locals to replace the external moderators. In contrast, the findings from the semi-structured interviews revealed that a majority of the interviewees, both administrators and teachers, believed there are enough locals, be it local or expatriate staff working in the country, to be appointed as external moderators, replacing overseas external moderators. One teacher said:

If we can have local human resources to replace external moderators, why not? I am all for it, because it is also high time that we develop our local human resources. We need to start tapping our own resources. We now have qualified experts. (TCH05.1)

Regarding moderators suitable for Brunei VTE, a small number of interviewees emphasised their preference for local moderators from industry, citing their good standard, industry’s experience with quality assurance and previous experience the VTE system has in using them for moderation purposes.

I prefer people from industry, not from educational institutions because industry have their own established standard. I think they can give good feedback. We did it before when we had City and Guild, we used external moderators from our local industry. It worked. However, we stopped using them. (ADM05.2)

However, a small number of interviewees recommended that staff from educational institutions such as the University of Brunei Darussalam (UBD), the Institute of Technology Brunei (ITB) and even staff from the VTEIs, as well as employers, be appointed for this purpose. In order to entice locals into accepting the appointment,
some interviewees suggested incentives be given to the local moderators, as is the practice with external moderators.

A small number of interviewees, both administrators and teachers, believed that local moderators can make independent judgements. They believed this issue is not a major problem, citing the practice of using locals by the Inspectorate Department of the Ministry of Education. A teacher said:

Whether someone is their friend or he is worried his position might be affected, it’s more personal. I think locals can do it but, they should not come from the same institution. They need to come from outside the organisation. Come to think about it, the inspectors, from the Inspectorate Department, inspecting the secondary schools and primary schools, they are locals and they do it effectively. (TCH08.5)

In strengthening their arguments about the use of local moderators, a few interviewees cited that Brunei uses local judges in the justice system. Others believed that independent judgement would always be an issue, not just in VTE in Brunei, but also internationally. A small number of the interviewees were also confident that local moderators could make independent judgements, although at the same time, they made a number of recommendations and suggestions as to how the possibility of bias could be reduced. This, according to them, could be done by implementing strategies such as instilling and ensuring professionalism and transparency, ‘establishing a secrecy act’, the use of multiple external moderators for each programme, proper guidelines and checklists, ensuring moderators have knowledge of DTE, VTEIs and the VTE system as well as appointing moderators from outside the VTEIs. A small number of teachers felt that it is difficult to ensure independent judgement because they believed local bias is part of the culture in Brunei. However, they felt that this issue is not critical in ensuring quality of the assessment process.
5.4.3 The ‘Assessment process and quality assurance’ guidelines

The third major recommendation for the improvement of the current quality assurance measures focussed on the ‘Assessment process and quality assurance’ guidelines, put out by the Secretariat Section of the DTE in October 2005. Semi-structured interviews were used to elicit data. The interview questions related to this part of the research question are in Section D of the interview guide for teachers (Appendix G) and Section C of the interview guide for administrators (Appendix H).

The interview data revealed that a majority of the stakeholders, both administrators and teachers, recommended that the DTE provide more information on the guidelines, their implementation as well as monitoring before they make the commitment to adopt the initiative. For example, a number of teachers suggested a series of sessions or meetings be held to discuss the move towards implementing the guidelines. A teacher expressed the importance of information regarding the guidelines by stating:

The proper approach is you need to ensure that people that are going to deliver them really understand. Do not just give out the proposal, and then collect it. They need to explain them. Otherwise people will just give feedback without understanding what they are commenting on. Do they really understand what they are trying to do? I asked the administrator what the purpose of this proposals. He talked about quality assurance, the need for consistency, the need to have standards but whose standards are they following? What is their basis for those standards? For them, their understanding is that, it comes from DTE, and we have to follow. Just that! You need to tell people what it is all about, make people understand. If they themselves do not understand, they cannot explain it, it won’t work. You cannot just put procedures in place and expect them to work. (TCH11.5)

The key point in the success of introducing and implementing any new system according to a number of administrators and teachers, is to prepare the staff. They believed all staff in the DTE and the VTEIs need to understand the purpose of the
system that the DTE is introducing, the reason for its implementation, and as described by one administrator ‘to make them understand all those why, how and when things’. A few interviewees also pointed out the importance of the DTE being transparent in order to make staff aware that the system was introduced with no intention to catch, penalise, or discriminate against them. A small number of administrators and teachers suggested the incorporation of procedures used by the disbanded Assessment Unit into the ‘Assessment process and quality assurance’ guidelines.

In summary, stakeholders’ recommendations and suggestions for the improvement of the quality assurance initiatives for the assessment process included monitoring of the quality of the assessment process in VTEIs, improvement of the current external moderation system, and improvements to the ‘Assessment process and quality assurance’ guidelines. Figure 5.8 summarises the finding for research question (5).

Stakeholders, both administrators and teachers, recommended that monitoring be implemented with both public and private VTE providers as they viewed it as an important and necessary aspect of a quality assurance system. There was no agreement however among interviewees as to the intensity of the monitoring activity. Stakeholders mentioned seven types of monitoring that should be considered by the DTE and its VTEIs and these included monitoring by external moderators, internal monitoring by individual VTEIs, a Quality Assurance Unit in the DTE, peer reviews, coordinator in the DTE, PDECs and an Assessment Unit in the DTE. Regarding the type of monitoring stakeholders perceived as effective in ensuring quality of the assessment process, the questionnaire data revealed that the majority of administrators and about two thirds of teachers believed external
moderators would be the most effective. About two thirds of administrators and about a third to half of the teachers believed the next three most effective types of monitoring were internal institution monitoring, a Quality Assurance Unit in the DTE and peer review. The three least preferred types of monitoring were coordinators in the DTE, PDEC’s and an Assessment Unit in the DTE.

Figure 5.8  Stakeholders’ recommendations for improving the current quality assurance measures of the assessment process

- Introduce monitoring
  - Types of monitoring proposed:
    - External moderators
    - Internal institutional monitoring
    - Quality Assurance Unit in the DTE
    - Peer review
    - Coordinator in the DTE
    - PDECs
    - Assessment Unit in the DTE

- Improvement to external moderation system
  - Improve communication channels
  - Institution action plans
  - DTE takes action
  - Change roles of external moderators
  - Use of local moderators

- Improvement to 'Assessment process and quality assurance' guidelines
  - Provide more information
  - Incorporate procedures used in the disbanded Assessment Unit
Recommendations from the administrators for the improvement of the current external moderation system included the submission of action plans by the VTEIs to the DTE. These action plans should provide details on how the institutions intend to address issues and solve problems raised by the external moderators’ reports. A number of administrators also suggested the setting up of a communication channel between the Secretariat Section in the DTE, VTEIs and the relevant Units in the DTE. Teachers, however, pointed out that improvement can only be achieved by the DTE if action is taken by them after receiving feedback from the external moderators.

Both administrators and teachers recommended that the role of external moderators be reviewed to focus more on aspects of moderating internal moderators and auditors for the quality assurance system. Around half of the respondents believed that the external moderation system should be continued. It also revealed that none of the administrators and a small number of teachers recommended the system be discontinued while almost half of the administrators and about a third of the teachers believed discontinuing the system should only be made once certain conditions were satisfied or put in place in the DTE and its VTEIs.

Stakeholders’ perceptions in justifying their choice to discontinue the external moderation system included its ineffectiveness in promoting the VTE graduates, both in furthering their study in overseas educational institutions as well as in finding jobs. In justifying their more cautious approach in discontinuing the external moderation system, interviewees commented that without a quality assurance system in place and without the guarantee that the DTE and VTEIs can monitor themselves, such a move should not be made.
On the subject of using local moderators, most interviewees agreed this approach should only be considered after careful consideration. Issues to be considered include the availability of local or expatriate staff, and people from industry with relevant expertise and knowledge, and the availability of a framework for its implementation. Regarding the ability of local moderators to make independent judgements, stakeholders believed that by imposing several strategies, bias would be minimised. Strategies could include providing guidelines, frameworks and instruments for monitoring, providing knowledge about the DTE, VTEIs and the VTE system and the appointment of moderators from outside the organisation.

Two recommendations were highlighted in relation to the ‘Assessment process and quality assurance’ guidelines. This was the importance of providing information to teachers so that they understand the purpose and the stages involved in the implementation of the guidelines. It was also recommended that the items and procedures used by the disbanded Assessment Unit be incorporated in the guidelines.

5.5 Conclusion

This chapter addressed the second aim of the study, which was to assess current practices of the DTE and its VTEIs in ensuring quality of the assessment process. In the foregoing presentation of data that addresses Research Questions (3), (4) and (5), a number of key findings were highlighted, giving insights into the quality assurance practices of the assessment process in the DTE and its VTEIs. The findings revealed several quality assurance issues and practices being implemented in the five VTEIs.
These included the absence of a structured comprehensive quality assurance system, the current institutional quality assurance measures, the external moderation system and the ‘Assessment process and quality assurance’ guidelines. It also presented findings on several shortcomings and strengths in the ways quality assurance initiatives were formulated in the DTE and its VTEIs. The perceptions of stakeholders about the effectiveness of the three quality assurance measures; the current institutional quality assurance initiatives, the external moderation system and the ‘Assessment process and quality assurance’ guidelines were also established. The chapter further presented a range of recommendations about ways to improve the current quality assurance measures of the assessment process.

If the current quality assurance measures are to be further improved and modified to contribute to quality VTE in Brunei, another factor needs to be considered. This factor is the current and future challenges confronting the DTE and its VTEIs in their effort to ensure quality provision of VTE. This concern is related to the third research aim and will be dealt with in the next chapter.
CHAPTER SIX

DATA PRESENTATION AND KEY FINDINGS:

Current and future challenges facing the DTE and its VTEIs in ensuring quality of VTE

6.1 Introduction

The previous chapter assessed the current quality assurance measures for the assessment process in the VTEIs and the ways they were formulated. It also presented findings on stakeholders’ perceptions of the assessment process quality assurance measures and discussed recommendations given by the stakeholders in improving the current quality measures. This chapter presents the findings for the third study aim and the last two research questions, namely (6) What are the challenges faced by the DTE and its VTEIs in terms of ensuring quality of VTE, and (7) What are the issues related to the provision of human resources that may affect the implementation of quality assurance measures? In answering research questions (6) and (7), this chapter is organised into two sections, each related to answering one of the research questions.
6.2 The challenges faced by the DTE and its VTEIs in ensuring quality of VTE

In an attempt to answer research question (6), three issues were identified. Namely, stakeholders’ perceptions of: i) challenges confronting VTEIs in Brunei in their effort to ensure quality of VTE provision, ii) whether VTEIs have initiated action to address these challenges and iii) whether the DTE has taken action to assist VTEIs to address the challenges. These issues are illustrated in Figure 6.2.
Semi-structured interview and survey questionnaire techniques were employed to collect data to answer the research question. The semi-structured interviews were used to explore the range of stakeholders’ perceptions about the challenges faced by the DTE and its VTEIs in ensuring quality of VTE. The findings from these interviews were subsequently used in the design of the survey questionnaire, administered to a larger sample, in order to give an overview of the stakeholders’ perceptions of the challenges in a larger population. The interview questions related to the first issue (challenges confronting VTEIs in their effort to ensure quality of VTE provision) are in Section F of the interview guide for both administrators and teachers (Appendices G and H) while Section D of the survey questionnaire was used to elicit insight into all three issues of this research question (Appendix I).

The findings from the interviews and survey questionnaire identified ten challenges perceived by stakeholders confronting DTE and its VTEIs in ensuring quality VTE provision. These challenges are the need to meet employers’ needs, insufficient
physical resources, coping with rapid technology development, lack of expertise in quality assurance matters, lack of funding, lack of experienced and knowledgeable leaders, difficulty in empowering staff, lack of teaching and learning resources, ability to meet increasing demands for place of study and the lack of quality assurance strategies. These findings are summarised in Table 6.1.

The findings for the ten challenges in Table 6.1 are presented in descending order, based on the percent of administrators who were in agreement on which issues they perceived as a challenge confronting the VTEIs in its effort to ensure quality of VTE provision. In the event where the proportion of administrators in agreement with two or more issues they perceived as challenges confronting the VTEIs are similar, the order for presenting these issues was then determined by looking at the highest proportion of teachers in agreement with each of the issues. This arrangement was made for easy reference.

As illustrated in Table 6.1, the survey questionnaire revealed that the proportion of administrators’ who agreed that the ten listed issues are challenges confronting the DTE and its VTEIs were between 75 to 100%. However, the proportion of teachers in agreement with this view was slightly lower compared to the administrators (68% to 90%). The findings also revealed that a higher proportion of administrators compared to teachers (between 70% to 85% of administrators and 44% to 73% of teachers) believed that VTEIs have already initiated action to address all the ten listed challenges. A similar finding was also noted when a higher proportion of administrators (55% to 90%) compared to teachers (39% to 64%) believed that the DTE has taken action to assist VTEIs in addressing these challenges.
Table 6.1  Challenges confronting VTEIs in ensuring quality VTE provision, institutional actions and DTE actions to address the challenges

<table>
<thead>
<tr>
<th>Issue/Challenge</th>
<th>Administrators (n=20)</th>
<th>Teachers (n=80)</th>
<th>Administrators (n=20)</th>
<th>Teachers (n=80)</th>
<th>Administrators (n=20)</th>
<th>Teachers (n=80)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The need to meet employers needs</td>
<td>20 (100)</td>
<td>67 (84)</td>
<td>17 (85)</td>
<td>55 (69)</td>
<td>17 (85)</td>
<td>51 (64)</td>
</tr>
<tr>
<td>Insufficient physical resources</td>
<td>19 (95)</td>
<td>72 (90)</td>
<td>17 (85)</td>
<td>53 (66)</td>
<td>16 (80)</td>
<td>41 (51)</td>
</tr>
<tr>
<td>Coping with rapid technology development</td>
<td>19 (95)</td>
<td>67 (84)</td>
<td>16 (80)</td>
<td>48 (60)</td>
<td>14 (70)</td>
<td>39 (49)</td>
</tr>
<tr>
<td>Lack of expertise in quality assurance matters</td>
<td>19 (95)</td>
<td>62 (78)</td>
<td>17 (85)</td>
<td>58 (73)</td>
<td>18 (90)</td>
<td>42 (53)</td>
</tr>
<tr>
<td>Lack of funding</td>
<td>18 (90)</td>
<td>66 (83)</td>
<td>16 (80)</td>
<td>53 (66)</td>
<td>14 (70)</td>
<td>39 (49)</td>
</tr>
<tr>
<td>Lack of experienced and knowledgeable leaders</td>
<td>18 (90)</td>
<td>54 (68)</td>
<td>14 (70)</td>
<td>35 (44)</td>
<td>11 (55)</td>
<td>38 (48)</td>
</tr>
<tr>
<td>Difficulty in empowering staff</td>
<td>17 (85)</td>
<td>59 (74)</td>
<td>14 (70)</td>
<td>42 (53)</td>
<td>13 (65)</td>
<td>37 (48)</td>
</tr>
<tr>
<td>Meeting increasing demands for place of study</td>
<td>16 (80)</td>
<td>59 (74)</td>
<td>14 (70)</td>
<td>45 (56)</td>
<td>12 (60)</td>
<td>31 (39)</td>
</tr>
<tr>
<td>Lack of teaching and learning resources</td>
<td>15 (75)</td>
<td>69 (86)</td>
<td>15 (75)</td>
<td>58 (73)</td>
<td>17 (85)</td>
<td>37 (46)</td>
</tr>
<tr>
<td>Lack of quality assurance strategies</td>
<td>15 (75)</td>
<td>59 (74)</td>
<td>14 (70)</td>
<td>48 (60)</td>
<td>17 (85)</td>
<td>48 (60)</td>
</tr>
</tbody>
</table>
The findings from the semi-structured interviews highlighted several issues regarding these challenges. The lack of expertise on quality assurance matters drew attention from several interviewees, from both groups of stakeholders. They stressed the need to prepare people in terms of knowledge, expertise, experience and exposure in the field of quality assurance. These interviewees also expected that in order for the implementation of a quality assurance system to be successful, the DTE and the VTEIs should provide staff with training on what the system is all about, as well as on ways to use them. One administrator believed that people from industry should be involved in the implementation of the system as he felt industry has the expertise and the experience in implementing the system:

We lack people with relevant expertise. It includes professionals, people with substantial experience in the job market. To achieve this, we need cooperation among the private and public sectors. Industry can give the input because they have their own quality assurance system. (ADM03.1)

Regarding funding, a majority of the interviewees, mostly institutional administrators and teachers were of the view that without adequate funding, VTEIs would not be able to achieve what is required in achieving quality. Most of these interviewees expressed their dissatisfaction with the issue of funding as they believed that the process in getting funding, materials, equipment and staff was very slow. A number of interviewees also mentioned that even suppliers refused to provide them with quotations for equipment they requested. They felt that the suppliers believe it is a futile exercise due to the unavailability of funding and the long and difficult bureaucratic process. A teacher highlighted this issue when she said:
It is interesting. When I talked to them [DTE], they said there was money there, but I don’t know why it took so long for it to come. Let me give you an example, we were told that in the middle of August, we should be getting our twenty machines. But so far, look, it’s almost October and we still haven’t got them. Funding has to be faster, things have to be faster. (TCH03.5)

On the issue of the lack of experienced and knowledgeable leaders, the interviews revealed that teachers felt that VTE leaders should be given ample time to implement changes, to monitor the progress of these changes and to be able to modify or refine these changes if they don’t work. They believed that this, along with having work experience, and knowledge about VTE in other countries would be a useful way for these leaders to be more competent. A teacher emphasised:

Leadership, we need someone who knows what they are talking about. Some of them do not admit they have deficiencies anywhere. Because a lot of people have never worked anywhere else so their experience is limited. The more you see, the more you become a better administrator, because you get to see things differently here. (TCH0X.4)

When it come to staff empowerment, both administrators and teachers acknowledged that it would be a difficult task convincing teachers, especially those teaching at trade level to accept a quality assurance system. However, these interviewees believed that it would not be a deterrent for them to encourage and initiate good practices amongst teachers. A few administrators expected some teachers to need ‘a little bit of coaxing’, citing their experiences during the implementation of common skills, where they faced a number of problems with teachers from trade areas.

Overall, the questionnaire findings revealed that a slightly higher proportion of administrators compared to teachers perceived the listed issues as challenges confronting the DTE and its VTEIs. Whether VTEIs have initiated action to address
the challenges and as to whether the DTE has already taken action to assist VTEIs in addressing the challenges, a higher proportion of administrators compared to teachers believed it to be the case with both these questions for all ten challenges. This finding implies that administrators may have implemented certain measures or initiated certain actions to address the challenges both at the institution level and at the DTE level, which they felt, are sufficient. On the other hand, teachers as implementers might feel that the improvements in their institutions are not as effective as they want them to be.

Regarding which of the ten listed challenges were the most pressing challenges perceived by both groups of stakeholders, the findings are illustrated in Figure 6.3a and 6.3b.

Figure 6.3a indicates that administrators believe that lack of funding, insufficient physical resources, and lack of expertise are the three main challenges facing DTE and its VTEIs. Teachers, as illustrated in Figure 6.3b, on the other hand, perceived lack of teaching and learning resources as the main challenge in ensuring quality of the VTE provision. Insufficient physical resources and lack of funding followed this. These findings imply that administrators put more emphasis on administrative matters such as the infrastructure and facilities, funding matters and availability of relevant staff whereas teachers, in contrast were more concerned with issues related to their students’ studies and issues directly related to the teaching and learning process such as teaching materials and learning resources.
In summary, the findings for research question (6) revealed the following: both groups of respondents agreed that all ten listed items in the questionnaire were
challenges confronting VTEIs in their effort to ensure quality of the VTE provision. The percentage agreement was between 75% to 100% for administrators and 68% to 90% for teachers. The findings also revealed that more administrators than teachers perceived that VTEIs have initiated action to address these challenges. A similar finding was revealed regarding the perceptions of both groups of stakeholders about whether they believe the DTE has already taken action to assist VTEIs to address the three challenges.

Administrators believed the three most pressing challenges facing the DTE and its VTEIs are insufficient physical resources, followed by lack of funding and lack of expertise. Teachers, on the other hand, perceived lack of teaching and learning resources, insufficient physical resources and lack of funding as the three most pressing challenge facing DTE and its VTEIs in ensuring the quality of VTE provision.

This section has identified the challenges stakeholders perceive as confronting the DTE and its VTEIs in their effort to ensure quality VTE provision. It has also established stakeholders’ perceptions about whether the VTEIs and the DTE have initiated action to address these challenges. The next section focuses on the human resource issues, which may affect the DTE and its VTEIs in their attempt to ensure the quality of the VTE provision.
6.3 The issues related to human resource provision that may affect the implementation of quality assurance measures

Having identified the challenges confronting the DTE and its VTEIs in the previous section, this section will focus on an issue related to those challenges, the human resource provision. Four main themes were explored and these themes were staff qualifications, staff professionalism, staff competency and staff/professional development. These issues are illustrated in Figure 6.4.

Figure 6.4 Structure of research question 7

<table>
<thead>
<tr>
<th>Staff qualifications</th>
<th>Staff professionalism</th>
<th>Staff competency</th>
<th>Staff/professional development</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff/professional</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>development activities</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Research Question 7:
What are the issues related to the provision of human resources that may affect the implementation of quality assurance measures?
As discussed in the methodology outlined in Chapter Three, the literature review and the researcher’s professional knowledge and experience were used in designing the interview guide and the survey questionnaire to answer research question (7). Semi-structured interviews were used to explore the range of stakeholders’ perceptions about staff qualifications, staff professionalism, staff competency and staff professional development. The interview questions related to this part of the research question are in Section G of the interview guide for teachers (Appendix G) and administrators (Appendix H). The survey questionnaire was used to further explore the stakeholders’ perceptions regarding staff/professional development.

As illustrated in Figure 6.4, under the theme of staff/professional development, three factors were further explored: staff professional development activities, strategies in staff/professional development and issues for staff/professional development. The semi-structured interview was used to gather data for the strategies in staff/professional development and issues for staff/professional development. After conducting the interviews and while preparing the survey questionnaire, it was decided to probe further the general views of a larger population of both groups of stakeholders about staff/professional development, in particular the implementation of the quality assurance system and staff/professional developments activities. The survey questions related to the implementation of the quality assurance system and staff/professional development activities are in Section A4 and A7 of the survey questionnaire (Appendix I) while the interview questions related to staff/professional development and issues for staff/professional development are in Section G of the interview guide for teachers (Appendix G) and administrators (Appendix H).
In analysing the interview data, findings are reported by combining the two groups of stakeholders’ perceptions, first to give a general overview, and only when applicable, specific comments from the administrators and teachers are presented. The reporting of the survey questionnaire data compared the responses of the two groups of stakeholders, administrators and teachers. The four dominating themes revealed by the interviews: staff qualifications, staff professionalism, staff competency and staff/professional development will be discussed in sequence.

The findings from the interviews about the first three themes; staff qualifications, staff professionalism and staff competency are summarised in Table 6.2.
Table 6.2  Are all Brunei VTE staff qualified, professional and competent?

<table>
<thead>
<tr>
<th>Are all staff in VTEIs</th>
<th>qualified?</th>
<th>professional?</th>
<th>competent?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Administrators (n=9)</td>
<td>Teachers (n=12)</td>
<td>Administrators (n=9)</td>
</tr>
<tr>
<td>Yes</td>
<td>4</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>No</td>
<td>3</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>No response/comment</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>
As to whether all staff in VTE are qualified, both in terms of subject/discipline and teaching qualifications, the interviews revealed that around half of the interviewees, both administrators and teachers, believed that all staff in the DTE and its VTEIs have the required qualifications. However, some acknowledged that there were variations in VTE staff qualifications, experience and knowledge. A few interviewees from both groups of stakeholders believed that the DTE and the VTEIs have ‘increased the capacity of their teachers’, citing the situation a few years ago, where there were very few teachers having a first degree qualification. They added that most of the teachers, both local and expatriate, only possessed Higher National Certificate and Higher National Diploma qualifications. Due to the DTE and its VTEIs initiatives, they believed almost all of the teaching staff in their institutions have upgraded their qualifications. One senior administrator mentioned that currently only a very small number of staff have low academic qualifications and this, he believed, was due to the unwillingness of these teachers to upgrade their qualifications and not because of the lack of opportunities to do so. These interviewees expected that with more qualifications, along with their broad experience, teachers should possess the capacity and ability to contribute towards the implementation and development of a quality assurance system.

However, an almost similar number of interviewees, from both groups of stakeholders believed that not all VTE staff are qualified. One teacher said:

Definitely not, a big no. We have people teaching here who have never ever had any training yet. It’s a big problem. They have never been trained as teachers, so they can’t be expected to write assessment papers, or teach in the classroom. No training, very difficult. (TCH02.4)
Table 6.2 also shows that both the administrators and teachers were equally divided on the issue of staff professionalism. Professionalism in the context of this study means ‘characterised by or conforming to the technical or ethical standards of a profession’ (Merriam Webster Dictionary, 2007). One teacher acknowledged that this issue was a sensitive issue to discuss and felt that nobody would dare discuss it openly. A number of interviewees believed that professionalism depended on individual teachers and several teachers commented:

No, if they are professional they should say, I am sorry, I have never done this before, can you help me, because I don’t know how to write an assessment paper. That would be professional, if they do that. (TCH02.4)

How are we going to ensure that staff are professional? It is like, if you have a child, how do we make sure that the child is doing the right thing without constantly giving him the cane? Staff are supposed to be professional. We want to instil professionalism into the staff. They should carry out what should be done. Obviously some of them are not. (TCH03.5)

One teacher mentioned that some teachers feel that they need to do the job properly, otherwise they will feel guilty, but others did not seem to care. Some interviewees perceived that the commitment of some local teaching and administrative staff in VTE was unsatisfactory. These interviewees cited low commitment as the cause for staff lacking professionalism. According to them, the lack of commitment arose from the lack of appreciation and recognition of their efforts by those in higher authority, lack of incentives in the VTE system, lack of teaching facilities and equipment, and unsatisfactory promotion procedures and opportunities.

An interesting finding regarding this issue was that a small number of interviewees believed local teachers were more professional than expatriate teachers. These interviewees believed that local teachers were more committed although admitted
they were less experienced, whereas the expatriate teachers, being the more experienced, having more exposure to the teaching situation, and more competent in knowledge and practical skills were less committed. These interviewees felt that expatriate teachers usually want to take things easy, some of them were self oriented, and unwilling to do the extra work as they ‘won’t get extra pay for it’.

An issue frequently raised by interviewees when discussing staff professionalism was staff placement. Most were generally satisfied with the process of staff placement but in a few cases where the staffing was inadequate, a few teachers felt that the placement process was ineffectively carried out because teachers were not assigned strictly on the basis of their specialisation, but rather for pragmatic reasons such as low teaching hours or the unavailability of staff for a particular unit. These interviewees believed that this situation leads to low teacher morale which in turn affects staff professionalism. Two teachers expressed their frustration at being asked by the DTE to teach programmes which were not in their field of expertise. One of the teachers described his experience in having to learn new things and at the same time teach them to his students. He expressed his difficulty in teaching practical skills just by ‘reading books’. The other teacher in discussing his experience and frustration said:

I started from zero. All the subjects were new to me. I talked to the DTE and I told them that they cannot place someone like that. Of course I can learn (Emphasis) but I cannot learn and teach at the same time. I might be able to catch up. If anything happens, lets say my students encounter problems, how can I help, I, myself don’t know the subject. I really pity my students. In terms of teaching, I felt I could not fulfil the requirements of the syllabus. (TCH04.2)

The third theme discussed by both groups of stakeholders relates to staff competence. The interview findings revealed that about three quarters of the
administrators and half of the teachers perceived that not all VTE staff are competence. The findings also revealed that three of the interviewees chose the ‘not sure’ option. This implies that they were reluctant to comment on this issue as it may be considered a sensitive issue as highlighted by a teacher in the previous theme of staff professionalism.

Some of the interviewees, both administrators and teachers, perceived that most VTE teachers were competent but they felt that what was more important is how far they are utilising it and how sincerely are they putting in effort to impart knowledge to their students and conduct quality assessments. A few interviewees believed that when the teachers were working within the framework of the programme guide they were competent, but in real life situations, without the knowledge, experience and exposure to industry, they perceived some teachers in VTEIs were not competent. A small number of administrators and teachers pointed out that some local staff were incompetent in handling practical components of the programmes because of their lack of industrial experience. The following comments point to the problem of VTE staff competency.

… many staff who work in VTE in Brunei have never worked in VTE or anywhere else. I am often very surprised at their attitudes towards many things in the schools, and I think, why on earth do they think that way. I think perhaps because they have never worked anywhere else. (TCH02.4)

They come from an academic background, or the majority have been students, and all of a sudden, they are teachers. None of them have worked in industry, which helps enormously. You need to have practical experience. How can you teach if only last year you were a student of the subject? That is evident to me throughout the school. (TCH02.4)
Some interviewees believed technology development made some ‘old teachers obsolete’. These interviewees also believed that a number of local teachers were not interested in the teaching profession in the first place.

The first factor under the staff/professional development theme explored using the questionnaire was professional development activities for teachers. Table 6.3 illustrates that both administrators and teachers, agreed that workplace visits, programmes of further study, mentoring and coaching, workshops, seminars and talks, return to industry programmes, structured professional development, internal validation activities, peer review and job rotation help VTE teachers develop their skills.

<table>
<thead>
<tr>
<th></th>
<th>Administrators % (n=21)</th>
<th>Teachers % (n=21)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>Unsure</td>
</tr>
<tr>
<td>Workplace visits</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>Programmes of further study</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>Mentoring and coaching</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>Workshops/seminars/talks</td>
<td>95</td>
<td>0</td>
</tr>
<tr>
<td>Return to industry programmes</td>
<td>95</td>
<td>5</td>
</tr>
<tr>
<td>Structured professional development</td>
<td>90</td>
<td>5</td>
</tr>
<tr>
<td>Internal validation activities</td>
<td>76</td>
<td>24</td>
</tr>
<tr>
<td>Peer review</td>
<td>62</td>
<td>33</td>
</tr>
<tr>
<td>Job rotation</td>
<td>52</td>
<td>29</td>
</tr>
</tbody>
</table>
All the activities, except for job rotation, were recommended by a majority of both administrators and teachers, with a percentage of between 62 to 100% in agreement to these activities’ importance in upgrading teachers’ knowledge and skills. On closer examination, the data also revealed that a higher proportion of administrators compared to teachers believed these activities (except peer review) would help VTE teachers develop their skills. This could imply that teachers tend to be more reserved and cynical about the kind of professional development activities considered useful and beneficial to them as mentioned by two teachers who stated ‘sending them for further study? Workshops? I don’t think it will work’ and ‘Training? Workshops? It may just be a waste of time’. Administrators, in the planning of such professional development activities should consider teachers’ views about which of these activities should be given priority.

The second factor discussed by stakeholders related to staff professional development was the strategies for staff/professional development. The stakeholders recommended the following three major strategies to improve staff/professional development: teachers’ training and retraining, identifying and training key people, and motivating staff. These strategies are discussed in turn.

The most frequently mentioned strategy recommended by both administrators and teachers was the training and retraining of teachers. The majority of the interviewees, both administrators and teachers, acknowledged the importance of training and retraining for staff development. They pointed out that the upgrading of teachers was urgent as some disciplines are expanding rapidly. This recommendation was consistent with Clayton and House’s (2000) findings, that their
informants agreed that a lack of currency in either the technical or assessment
domains is likely to generate a lack of confidence in the assessment process.

Stakeholders also pointed out that most local teachers being young and
inexperienced needed guidance and exposure to new technology. This, they
believed, can be done through programmes of industrial placement and ‘hands-on’
experience in the workplace. A small number of interviewees also pointed out that
because the number of industries in Brunei is small, provision for industrial
experience is difficult. Some interviewees suggested that seminars, workshops, talks
and discussion sessions on issues related to a quality assurance system in general,
and the assessment process in particular, be organised by the DTE and the VTEIs.

A number of interviewees also believed that new teachers, those without any
teaching qualification or teaching background should be immediately sent for
teachers’ training. A few interviewees criticised the current arrangements made by
the Personnel Unit in the DTE to send novice teachers to VTEIs without proper
teaching qualifications, knowledge or experience. They felt that these new teachers
should be sent directly for teacher training rather than waiting for several months
and some even up to three years before undergoing such training. A teacher in
describing her experience with new staff said:

The new teachers found that the situation was not what they had expected, because it
was not what people had been describing to them. They can sink or drown, and often, I
think, have to pretend that they can teach. Teachers’ training, that’s good, that’s very
good. I’m worried about the time before they go for teacher training. I think they have
to be given lots of help. (TCH02.4)

These interviewees felt that mistakes by these teachers could cause problems,
affecting not only the teachers themselves but also their students and the employers,
thus jeopardizing the reputation of the DTE and the VTEIs. A number of interviewees suggested mentoring programmes be established in the VTEIs. Some interviewees noted that external moderators also made similar suggestions in view of the increasing number of new teachers. A teacher said:

… they are only a couple of years older than their students, and they haven’t worked in that field. It is understandable, because it’s all new. When new graduates start teaching, of course there are bound to be problems. Mentoring programmes can help. (TCH02.4)

Another suggestion about training was to retrain all teachers in view of the rapid changes in technology. As suggested by an administrator:

We need to have career pathways. One suggestion is to retrain our staff every five years because their knowledge can sometimes be obsolete. For example, in the automotive programme, all cars used to be manual or auto. Nowadays you look at BMW, their products are currently using electronic technology. We don’t teach electronics to our students. When we send students for work placement, the students are at a loss. (ADM03.1)

Another teacher in criticising a suggestion by a senior staff member in the DTE on the issue of work placement recommended that work placement should be well prepared and planned for it to be effective:

I remember there was a suggestion from the DTE for teachers to undertake work experience on weekends. Of course nobody wants to do it, people wanted to be with their families. You cannot do it in two hour or three hour slots per week. The problem with on the job training is that if we were sent to a workshop, chances are if we were doing XX this week, there might not be any XX work to be done next week. The workshop cannot wait for us to come back the next week to continue our training. They have customers to attend to. If there is a proper training school or proper arrangements, with a continuous three to six months training duration, it may be more effective. (TCH04.2)

The second most frequently mentioned strategy to improve staff professional development was identifying and training key people. Two administrators and four teachers felt that administrators in the DTE and VTEIs should identify key people,
those with the capability and capacity to be developed further. They felt that these key people should have the understanding of quality assurance aspects. A few of the interviewees recommended that all departments in the VTEIs should have qualified people who can act as quality assurance inspectors, who could give seminars and lectures, disseminate information regarding quality assurance and monitor the implementation of quality assurance initiatives in the institutions, the DTE and the BDTVEC. A small number of interviewees believed the DTE and its VTEIs have many good teachers who are good at giving instruction as well as good in delivering training and stressed that it was a matter of identifying and training them.

The third major strategy in improving staff/professional development focused on improving staff motivation. As mentioned previously, not all interviewees from both groups of stakeholders agreed with sending teachers for training as an effective measure in ensuring quality of the VTE provision. Some interviewees felt that most of the VTE teachers were already trained and sufficiently qualified to perform quality work, however, they felt that staff motivation was lacking. A few interviewees suggested motivational seminars or workshops be conducted by the DTE and the VTEIs. Two teachers also suggested that teachers be inculcated with a sense of belonging towards their institution. A teacher said:

\[\text{Quality is something that you really have to work on, you need to come up with better things and you need to have the initiatives. Teachers might have the knowledge but they don’t want to do it, they don’t want to come up with better things, because they don’t have the motivation. You need to motivate them, in the sense of, making them prouder of being a professional. (TCH03.5)}\]

Some teachers expressed their frustrations regarding motivating staff. They believed the work culture for some staff is already embedded and it would be a difficult task to change them. They also felt that the current working environment where an
incentive, in terms of an annual bonus is provided even without good working performance, does not facilitate a culture change. They felt that they were at a loss to overcome this issue. Their frustrations were highlighted in their comments:

Sending them for further study will not solve the problem. Motivational workshops, I don’t think they will change their attitudes, especially, for the older teachers, the work culture is already embedded, right. It depends on how people view their work. I wouldn’t know how to change it, if I was the leader. It is the one thing that would give me a headache. I don’t say it’s a hopeless case, ha, ha, ha, but it is not easy, I tell you. (TCH06.4)

This is a government department. Whatever I do, it’s going to be the same anywhere. I’ll never get fire, I’ll get my bonus. I’ll get my training even though I don’t do my job properly, so what type of motivation are you talking about? (TCH03.5)

Three major strategies were recommended by the two groups of stakeholders in improving the effectiveness of staff/professional development. However, in considering these recommendations in the planning and implementation of any staff professional development strategies, caution should be heeded about two issues which were also highlighted during the study. These issues were lack of opportunities for staff/professional development and staff attitudes towards staff development. These issues will be discussed in sequence below.

The first issue highlighted by a few stakeholders, both administrators and teachers, was the lack of opportunity for staff/professional development. In spite of the importance of keeping staff abreast with the latest developments in modern technology, these interviewees believed that staff/professional development programmes for VTE staff were not adequate in terms of frequency, level, relevance and equity. Some of them claimed that their managers were not supportive of staff development or upgrading programmes. A comment from a teacher at a VTEI:
…teachers should be given the opportunities to attend courses. In Brunei Shell
Petroleum Company, their staff are entitled to go for short courses twice a year,
even attend short courses overseas. There are none for us. Teachers fill in the form
and they submit the completed form, however, at the end of the day, they don’t get
it, it’s frustrating. (TCH10.1)

Two teachers commented on the opportunity for expatriate staff to participate in
staff development. Some interviewees acknowledged that many expatriate teachers
were without teaching certificates. These interviewees felt that expatriate staff who
have been in the country for several contracts are out of touch with technological
developments in industry, are out of date and need to upgrade their qualifications in
order to meet the requirements of some regulating bodies for them to be able to
teach particular programmes. Their experience in the ‘context of the local
environment’ was also limited.

The second issue highlighted by a number of interviewees, both administrators and
teachers about staff/professional development was the VTE staff attitudes towards
staff development. They acknowledged the difficulty in persuading teachers to
attend staff development programmes:

… sometimes people feel attending workshops is just a waste of time. Why should I
attend workshops, it is just makes life more difficult, there is other work that needs
to be done in the office. (ADM07)

… no one was willing to attend. We tried it the other day but only one teacher
volunteered. If we sent them for, lets say, a motivational talk, they will feel that they
are lacking something. I hope they will realize the positive side of it but I think, they
will only feel the negative side. (ADM04.4)

These interviewees cited the lack of motivation as well as lack of incentives as the
cause of this problem. In order to address this issue, some interviewees suggested
that in-house training within the DTE rather than outside the organisation, should be
offered continuously to encourage teachers to attend professional development courses.

In summarising this section, the main findings related to research question (7) are illustrated in Figure 6.5.

**Figure 6.5** Issues related to human resource provision that may affect the implementation of quality assurance measures

It is clear from the findings that there are some aspects of human resources that may hinder effective implementation of a quality assurance system in the VTE system.
The interview data specifically revealed that there were some issues with the following: (i) staff qualifications, which varied among VTE staff; (ii) staff professionalism, in that the dedication and commitment of some teaching and administrative staff in VTE, both local and expatriate staff, was unsatisfactory. Staff placement, an issue highlighted by a few interviewees as affecting staff professionalism, which they felt was not effectively carried out; (iii) staff competency, in that some staff members were perceived as lacking the competencies needed in handling practical and theoretical components of programme implementation; and (iv) staff/professional development.

Factors explored under the topic of staff/professional development revealed that in terms of professional development activities for teachers, both administrators and teachers agreed that workplace visits, programmes of further study, mentoring and coaching, workshops, seminars and talks, return to industry programmes, structured professional development, internal validation activities, and peer review help VTE teachers develop their skills. Job rotation was the only activity which was not recommended by a majority of both administrators and teachers.

Regarding strategies for staff/professional development, a number of interviewees recommended the DTE and its VTEIs provide opportunities for teachers’ training and retraining including the setting up of mentoring programmes for beginner teachers, identifying and training key people, and focusing on motivating staff. On the issue associated with staff/professional development, a number of interviewees felt that staff training was not adequately provided in terms of equity of opportunities, frequency, level and type appropriate for the recipients, and teachers’ attitudes towards staff/professional development programmes. Such human resource
problems need to be resolved if the implementation of a quality assurance system is to be successful in the near future.

6.4 Conclusion

This chapter addresses the third aim of the study, determining the current and future challenges confronting the DTE and its VTEIs in their effort to ensure quality provision of VTE. From the foregoing data presentation, it is apparent that the stakeholders perceived the DTE and its VTEIs as facing a number of current and future challenges which they believe could affect the implementation of the quality assurance measures. The findings also revealed that stakeholders perceived that the VTEIs have initiated action and the DTE has taken actions to assist VTEIs in addressing most of these challenges. Stakeholders also believed that a number of themes and issues related to human resource provision, such as staff qualifications, professionalism, competency and staff/professional development, could affect the implementation of the quality assurance system in general and the assessment process in particular.

In the next chapter, the key findings highlighted in Chapters Four, Five and Six will be discussed and their implications for the future direction for the DTE and its VTEIs will be identified to provide guidance for successful implementation of the quality assurance system in general, and the assessment process in particular.
7.1 Introduction

As detailed in the introduction in Chapter One of this dissertation, and reinforced in Chapter Three, Research Design and Methodology, the overall purpose of this study was to understand and compare the quality assurance policies of the current assessment system of vocational and technical education in Brunei Darussalam as perceived by the two groups of stakeholders: the administrators or policy makers, and the teachers or the implementers. This was done in order to gain insight into current practices and in particular to assess whether quality assurance policies are perceived to be utilised effectively by the DTE and its VTEIs to ensure the provision of quality VTE in Brunei Darussalam.

A mixed method approach was adopted for this study. As described in Chapter Three, it was felt that semi structured interviews and survey questionnaires were the best methods of data collection to investigate administrators’ and the teachers’ perceptions of the quality assurance policies of the assessment system of VTE in Brunei. The use of a combination of methods in this study was based on the
assumption that any bias inherent in the particular data sources, researcher and method would be minimised when used conjunctively. It also helps with the convergence of results and complementarity of evidence. This chapter is divided into three sections. Section 7.2 discusses the major findings from the study and their implications for the future direction of Brunei VTE. Section 7.3 examines the limitations of the study and Section 7.4 concludes the dissertation by suggesting possible further research arising from this study.

7.2 Major findings and their implications for the future direction of Brunei VTE

This section summarises the major findings of the study and discusses the implications of the findings for the future direction of Brunei VTE. By drawing together the main ideas presented in Chapters Four, Five and Six, this section highlights several major issues identified from the results of analysing the data derived from the integrated use of documentary analysis, semi-structured interviews and questionnaire surveys. As mentioned in Chapter Two, even though the focus of the study was on the quality assurance initiatives of the current assessment process in Brunei VTE, in order to improve this process, one has to gain insight into the quality assurance system in general. In discussing the quality assurance of the assessment process, the issues related to the quality assurance systems in general will also be discussed to give the whole picture of the situation and to show relationships between the whole quality assurance system and its assessment process component.
The following seven major aspects were examined in this study and each will be discussed in turn: Establishment of a structured comprehensive quality assurance system, documentation of quality assurance policies and measures, staff awareness of the importance of a quality assurance system, aspects of human resource provision, management of a quality assurance system, monitoring and evaluation of quality assurance measures, assigning responsibilities, and the changing role of external moderators. This section will also provide suggestions for the direction that the DTE and its VTEIs could take to ensure a quality VTE provision of the assessment process in particular, and the quality assurance system in general. These issues along with the implications of the findings will be reviewed in turn.

**Establishment of a structured comprehensive quality assurance system**

Evidence presented in Chapter Five suggests that based on the two groups of stakeholders’ perceptions, there was no structured comprehensive quality assurance system as a whole and the quality assurance of the assessment process specifically, implemented by the Brunei DTE in its VTEIs at the time of the study. Both groups of stakeholders also perceived a relatively low number of quality assurance measures in place in the VTEIs and believed these measures were not uniformly practiced by all the VTEIs or all the departments in the institutions. The stakeholders in this study agreed on the need for the DTE to establish a structured comprehensive quality assurance system for Brunei VTE. This suggestion is consistent with the European Associations for Quality Assurance in Higher Education (2005) view that formal policies and procedures will provide a framework within which educational institutions can develop and monitor the effectiveness of their quality assurance systems and help provide confidence in institutional autonomy.
Without doubt, the starting point for quality assurance requires that each VTEI very carefully examines its purpose, bearing in mind national VTE imperatives as well as the DTE and the VTE institutional strengths and characteristics. In developing and planning a quality assurance system of the assessment process and the quality assurance system for Brunei VTE, it is necessary to define precisely the stakeholders’ perceptions of what constitutes quality in VTE. This was discussed initially in the literature review in Chapter Three. Then it is important to consider what purposes stakeholders perceive as most significant for implementing a quality assurance system.

It was evident from the present study that different definitions of quality were used simultaneously by both groups of stakeholders to define quality in VTE. These findings support Harvey and Green’s (1993) claim that stakeholders’ conceptions of quality may not fit only one of the five definitions. Van Damme (2000) commented that the relative weight of definitions in policies and in institutional quality assurance frameworks are often responsible for a lack of understanding in this field. Taking this caution into consideration, the DTE and its VTEIs should identify the type quality that Brunei VTE wants to achieve when planning, designing and implementing a quality assurance approach.

In planning for a quality assurance system, it is also important to describe each definition of quality separately in order to get a clear picture of what each stands for, what the ideological basis is, and what the implications of the proposed view of quality are. Points of agreement and disagreement, and the criteria that each stakeholder used when judging quality, provide a useful starting point for negotiations about a common platform for quality work in the Brunei VTE situation.
This approach for the learning and implementing of a quality assurance system was suggested by Giertz (2001) and Woodhouse (1996). A consensus between administrators as policy makers and teachers as implementers with regard to what is meant by quality in the context of the current VTE environment needs to be achieved so as to avoid potential conflict. It would be ideal as suggested by Woodhouse (1996), if this articulation be presented as a unified voice, as this will enhance the credibility of the conception of quality. Watty (2003) warns that where there is a lack of consensus between groups of stakeholders on such fundamental issues, it is not surprising if teachers respond to quality led change in a variety of different ways.

It is fortunate, as documented in Section 4.2.3, that the stakeholders in this study seemed to agree on the most important purpose for implementing a quality assurance system, namely improvement of the VTE. Agreement amongst stakeholders is critical since each of the five purposes for implementing a quality assurance system demands a specific focus, which in turn influences the architecture and methodology of the quality assurance mechanism and process. The use of overlapping, incompatible concepts and notions of quality and different views on the purpose for implementing a quality assurance system, as cautioned by Van Damme (2000) would result in a confused and confusing system of quality assurance.

**Documentation of quality assurance policies and measures**

As detailed in Chapter Five, due to the absence of a structured comprehensive quality assurance system in the DTE and its VTEIs, there appears to be no consolidated documents on a quality assurance system in general, nor for the quality
assurance measures for the assessment process in particular. This is in contrast to Robinson’s (1994) claim that in an organisation with a quality assurance system in place, its procedures for delivery of service is well documented. He added that in such organisations, the documentation is clear and explicit in its description of procedures and its present practice. The information is also presented in a readable and user friendly manner. Harman (1996), shares the same view. He stated that in any quality assurance mechanism, it is crucial that ‘there be clear, written guidelines and that all processes should be as open as possible in order to develop confidence of all those involved’ (p. 93). Furthermore, according to Harman, all stakeholders should be ‘encouraged to develop and demand high quality documentation and conclusions should be based on evidence available to all the parties involved in the process (p. 93).

The fragmented quality assurance measures in the DTE and the VTEIs, if continued would create important strategic consequences as they define the contents of quality assurance mechanisms, their effectiveness, the actors involved and the role of quality in steering the direction of the Brunei VTE system. The identification and the assessment of the existing quality assurance measures in the VTEIs as carried out in this study and presented in Section 5.2, are consistent with Dale, Cooper and Wilkinson’s (1997) suggestion that this exercise is necessary in order to determine how these measures will be retained, modified and integrated within any new quality assurance system.

Based on the findings of this study, it is clear that the DTE, as a priority, needs to consolidate its quality assurance documents and disseminate these documents to the administrators and teachers in the VTEIs. A manual of key documents on the quality
assurance system in general, and the assessment process in particular, needs to be published to guide administrators, teachers and even students. It is crucial that ways be found to minimise additional paperwork. What emerged clearly from the research is that from the respondents’ perspective, assessment processes and requirements need to be kept simple, with an emphasis on minimum but clear and detailed records of practice. Furthermore, such procedures must be built into day-to-day operations. Over time, a more precise understanding could be developed of what kinds of information should be recorded and kept.

**Staff awareness on the importance of quality assurance**

Staff awareness of the importance of a quality assurance system in general, and to the assessment process specifically, to the VTE was another major issue highlighted in this study. The study revealed that the DTE and the VTEIs had attempted to implement certain quality assurance measures, but as documented in Chapter Five, not all staff were receptive to their implementation. While stakeholders, especially teachers face the burden of responding to scrutiny, there was also a feeling amongst some of them of being manipulated, or as one respondent said ‘of not being trusted and valued’ by the DTE. In addition, a number of teachers appeared to be wary of the possible effects of overt emphasis on internal verification. They felt that assessors might regard verification as a judgement upon personal performance, rather than as a monitoring of assessment quality, and feared the consequences for management’s relationships with staff. These issues confirm the contentions of Harvey and Knight (1996) about the responses of academics in their study. It can be reasonably anticipated that the move will require a mind shift on the part of some
stakeholders, especially teachers, towards a more comprehensive view, which encompasses the aspect of quality assurance practices as a whole.

While the majority of administrators and teachers did not express negative views about the quality assurance measures recently implemented by the DTE (for example, the ‘Assessment process and quality assurance’ guidelines), they believed that much of the problem in their implementation, stemmed from the DTE. While this problem was not always related to assessment processes, there was often a sense of confusion and a lack of clear information and guidelines on the quality assurance procedures. This also seemed to contribute to a degree of demoralisation amongst teachers. However, bearing in mind the dissatisfaction with the current quality assurance measures among a large number of respondents, in particular with the lack of a structured comprehensive quality assurance system, in general and in the assessment process in particular, it is reasonable to assume that administrators and teachers would welcome improvements in quality practices.

Another lesson that can be drawn from the findings of this study is that while intrusive, top-down, quality assurance procedures could be a viable long term option, maintaining and improving quality is more easily achieved when staff are directly involved in the process of quality management. Mole and Wong’s (2001) study of quality management for university managers in Hong Kong found similar results. A suggestion made by Dynan and Clifford (2001) is also relevant to Brunei VTE’s attempt to introduce a quality assurance system. They claimed that for quality to be fully incorporated in the institution’s processes, there must be real engagement of the staff at all levels, an engagement which arises from a sense of empowerment.
Staff members must feel that they can initiate or at least play key roles in both assuring and improving quality.

Providing an awareness of the importance of quality assurance early in the planning stage could assist teachers to understand the need for change as most teachers in this study appeared unaware of established procedures and practices, whether in their own department, institution or even across institutions. Following the recognition of procedures, teachers could then examine them for their effectiveness. According to Dale et al. (1997), employees will only willingly participate in the change process if they feel a change is required. Implementing an education and training programme in the planning stage of any quality assurance initiatives would assist in moving staff into the implementation stage.

The findings highlighted the importance of communication as a strategy in ensuring quality provision in the VTEIs. The DTE could consider playing a role in communicating with VTEIs regularly about quality assurance in general and assessment concerns in particular. The involvement of all teachers, according to Dale et al. (1997) is important towards continuous improvement. They noted that the principle of ongoing change and continuous improvement may at first be viewed as a threat to established working relationships and could produce resistance, a perception highlighted by some stakeholders in this study. These authors also commented that involving staff members in the planning process could reduce the restraining forces identified, and that the best way of reducing resistance to change is to involve those whom it is going to affect in the decision making process, an issue very much highlighted by stakeholders in this study.
In order to increase staff awareness of the importance of the quality assurance measures across all VTEIs, the DTE needs to organise briefing programmes for all relevant DTE staff about the concepts of quality and the quality assurance measures to enlighten them about the purpose of the measures, assumptions underlying them, and about intended outcomes. The reasons for monitoring academic activities and managing quality assurance in general need to be made clear and the levels of participation of VTE stakeholders widened, for example, by consulting and involving more VTE teachers, as well as VTE experts, from both the public and private sectors, in the formulation of a VTE quality assurance system. Regular formal and informal conferences could be held with the DTE staff at various levels to share management problems, thereby establishing good communication and rapport among administrators and VTE staff.

**Aspects of human resource provision**

Staff of an institution, according to Mc Ilroy and Walker (1993), play an important role in quality assurance and the quality of an institution will be decided by the quality of the staff. They added that effective staff development and involvement of staff in planning are important elements of quality assurance. Staff of an institution should be able to analyse their operations and modify them to optimise the use of resources. This is important for the continuous improvement of an institution.

This study demonstrated that both groups of stakeholders believed that certain aspects of human resources in the DTE and its VTEIs could seriously hamper the successful implementation of quality VTE programmes, as well as the implementation of quality assurance measures in general and the assessment process
specifically. Amongst the identified factors include the unavailability of specialised staff in some disciplines, staff lacking appropriate competencies, variable staff motivation and commitment, and unsystematic staff professional development. This finding is consistent with the claim made by Harman (1996) that within the Asia and Pacific region, of which Brunei is a part, it is important to recognise that a great deal of discussion about quality in education relates to basic input issues, such as the degree of expertise and training, numbers of staff, level of preparation for students, the degree of competence of administrators or leaders and availability of resources. Staff issues such as the overall shortage of well-qualified staff and staff without relevant qualifications, according to Harman, are the major problems facing many developing countries.

Professional development efforts in the DTE and its VTEIs, even though with the established Human Resource Development and Management Unit in the DTE, appeared to be fragmented with little common direction apart from system wide policy based professional development. The findings of this study led to the major conclusion that professional development within VTE in Brunei is in need of further review and considerable reform if it is to become more effective. There is also a critical need for comprehensive staff development policies in the VTE system. Shortcomings related to staff development need to be immediately improved in order to promote successful VTE quality assurance implementation. Both groups of stakeholders believed that the DTE and the VTEIs should plan and integrate the quality assurance measures within a planning process aimed at achieving VTE objectives. This approach is supported by Harris and Simons (1999) who believe such an approach is more effective in achieving long term change. Boerstler et al.
(1996) have also argued that targeted training can also be effective as it saves money, time and avoids training people who do not use it, a problem identified in this study and discussed in Section 6.3.

As detailed in Chapter Six, there should also be targeted professional development based on what the system needs rather than on staff willingness or inclination alone. Based on this finding, it is clear that the Human Resource Development and Management Unit in the DTE needs to assess and coordinate staff training needs with VTEIs. Many stakeholders in this study, both administrators and teachers, advocated training that is conducted on an on-going basis and directed at all groups in the organisation. As mentioned in Section 5.2.1, experienced expatriate staff could be encouraged to share their knowledge and expertise with local staff in planned staff development activities. Recently trained staff could be asked to share their knowledge and experience with other staff members.

There is also the need for the development of planned long-term professional development programmes in quality management for VTEIs leadership teams as well as those in the DTE. Quality management components could be incorporated into leadership development programmes and induction programmes for new administrators. Top and middle level VTE staff need to be trained in educational and assessment policy making to increase their capacity to develop better VTE quality assurance policies and outcomes. The DTE needs to identify key people to be trained on quality assurance aspects. These people could be appointed as quality assurance inspectors, or quality assurance moderators, replacing external moderators.
Teachers will need to upgrade their knowledge, both in their specialist area and assessment and verification aspects. The DTE has the responsibility to ensure adequate support to teachers for the planning, designing and implementation of students’ assessment. New teachers need guidance and exposure to new technology through well prepared and planned work placement programmes and hands on experience in the workplace. Induction and mentoring programmes for new VTE teachers and administrators at all levels could be organised by the DTE to familiarise them with the VTE quality assurance formulation process, in general and its assessment component, specifically.

Management of a quality assurance system

Another major finding of this study is that many quality assurance management processes in the VTE system, such as planning and monitoring, communication and decision making, evaluation and feedback, staffing and support services were perceived as ineffective and insufficient, especially by teachers. For example, teacher-administrator interactions, and communication between institutions and the DTE units were found to be minimal and the flow of informal communication within the system perceived as ineffective. As detailed in Section 5.2.2, the organisational tasks in relation to quality assurance were found, in some cases, to be implemented without a clear sense of direction and purpose and therefore, activities lacked effective coordination. The DTE needs to develop a management structure and processes with accountabilities negotiated and defined for individuals and teams which are more facilitative and participative. In this integrated structure, incentives should be aligned, and formal and informal leaders should be involved.
To remedy this issue, the DTE needs to explore further opportunities for the extension of quality management networks. The potential for the sharing of best practices in areas such as assessment and evaluation, and administration and management of quality assurance initiatives in general, may result in enhanced learning in these areas. Opportunities also need to be created for VTEIs which have developed quality assurance strategies to share these strategies with other institutions. There was no clear evidence in this study that formal inter-institutions networks to share ideas and resources in relation to quality assurance initiatives, and in particular the assessment process had been established. It was clear that wide consultation with the immediate VTEIs community, in the form of meetings and committees, was considered to be a significant quality management strategy.

Organisations external to the VTEIs community, as presented in Chapter Five, were found not to be regularly consulted on quality assurance issues, yet a number of stakeholders acknowledged such organisations may be more advanced in specific quality assurance processes. It is important that opportunities be created for school administrators to liaise with other organisations outside the DTE and to form learning partnerships with these organisations in relation to quality management processes. Enhanced coordination between relevant bodies is clearly necessary to enable the decision makers to better recognise the realities of social and technological changes taking place. This collaboration needs be framed by a high degree of professional involvement, significant support for innovation, and clear channels of communication between all collaborating individuals and groups. Major stakeholders should also be involved in the formulation of quality assurance
initiatives to increase their understanding and gain their support and commitment for implementation.

**Monitoring of quality assurance measures**

Another major finding of this study is that policies on evaluation and monitoring of quality assurance measures, in general, and the assessment process in particular, need to undergo further clarification and amplification, especially those concerning the type and frequency of monitoring, the body or personnel responsible for carrying out this process and the type of strategies to be practiced for the best outcomes.

The types of monitoring proposed by the stakeholders in the study can be grouped into categories of responsibility as proposed by Taylor (2003). The first category is the presence of an individual in each of the VTEIs with responsibility for the functioning of academic quality assurance. In the current Brunei VTE set up, this individual can be the Examination Officer, who conducts monitoring internally, that is, within the VTEIs. This approach allows for a uniform and coordinated institutional response, if say, external pressure to demonstrate ‘accountability’ is applied by an accrediting body, in this case the BDTVEC. With this approach, there is no question as to accountability, or ultimate responsibility. In the eyes of the institution’s principal and its academic board members, the responsibility for maintaining academic quality is clear. However, Taylor warns that care must be taken when using this approach that the procedures do not become the Principal’s or the Examination Officer’s ‘thing’ (p. 18), implying a lack of ownership on the part of the affected staff. With so much authority for quality assurance matters invested in a single, highly visible Examination Officer, there is an understandable tendency
for staff to consider quality as ‘that person’s job’ (p.18), when it is more appropriately viewed as each person’s job. The inevitable tendency for decision on quality to be centralised and personalised under this arrangement runs contrary to Harvey’s (1998) view that effective implementation of a quality assurance system requires a professional commitment by all participants in the system, and empowerment of those participants to demonstrate that commitment. Problems may arise due to communication gaps, if the Examination Officer is unable to articulate effectively to other staff the purposes served by the quality assurance processes, or the benefits gained from them. This is currently the case in some VTEIs, as revealed in this study.

A second arrangement would give responsibility for academic quality assurance to the central body regulating academic affairs. This type of monitoring can be carried out by a coordinator in the DTE, a Quality Assurance Unit in the DTE, the Programme Development and Evaluation Committees (PDECs) and the Assessment Unit. This arrangement might be termed ‘collegial’, in that it builds on pre-existing structures of collegial governance present in most VTEIs, often already empowered with certain review functions, in areas such as the curriculum (as is the present case with the PDEC), and enlarges their responsibilities to cover the entire spectrum of academic quality assurance activities. The central body would have multiple responsibilities and considerable demands on their time. As recommended by several interviewees in this study, both administrators and teachers, such a body should not be composed of administrators or teachers who have burdensome administrative or teaching responsibilities, as is currently the case in some committees in the DTE. These people should be appointed solely for the purpose of
assuring quality. However, caution should be noted on this issue because there is always the risk of these people becoming ‘distant’ from the actual quality assurance initiatives.

In a third category, academic quality assurance would become the responsibility of an independent group created specifically for this purpose. In the current arrangement in the DTE and its VTEIs, external moderators can be classified in this category. External moderators operate under authority granted by the BDTVEC. Peer review and the existing National Programme Advisory Committee (NPAC) could also be grouped into this category. Currently, NPAC is interdisciplinary in membership and it also has a complement of members from outside the DTE and the VTEIs. The ability of such teams to bring multiple perspectives (and as for the case of external moderators, their international perspectives) to bear on the task of making institutional processes work better, and overcome restraints created by bureaucratic control systems in their pursuit of their own and the institution’s goal.

The sharing of experiences among members of the group is an aid in disseminating knowledge of good practice to all teachers, and administrators in the VTEIs. As proposed by some administrators in the study, unless a quality assurance committee enjoys genuine autonomy, it may have to rely on other governing bodies or committees to implement its recommendations. Another caution from Taylor (2003) is that this arrangement may be viewed with cynicism, as simply an extension of the management if it is ‘top heavy’ (p. 22) with administrators, however, he added, if its members are mostly junior teachers, there is a risk their suggestions will not be taken seriously.
In deciding which type of monitoring the DTE should consider for implementation, advice from Baker (1997) could be useful. He stresses that self-assessment, such as to be carried out by the Examination Officer in the individual VTEIs, is an introspective procedure, and thus biased. In order to strengthen the credibility, legitimacy and recognition of results of this type of monitoring, Baker suggests that internal monitoring be combined with an external monitoring system which ensures periodic review by an independent and appropriate third party body. External reviews, he declares, are important to ensure that the internal evaluation is taken seriously. It will also bring in outside perspectives. In other words, the use of an Examination Officer, coupled with one or more of the other types of monitoring would be more effective.

Evaluating and reviewing the quality assurance system

One of the potentially most important suggestions emerging from the interview data was the perceived need to review the current measures concerning the roles and responsibilities of the Examination Officer in each VTEIs. Such a review, according to many respondents, would ensure that anybody assigned a particular task had sufficient capacity in terms of personnel and knowledge to carry out the task efficiently. Committees and quality departments alone were found to be inadequate in implementing the quality assurance initiatives. This finding suggests that relevant structures and systems might need to be created.

Some form of genuine delegation of authority would be critical in order to empower the teachers to implement quality assurance programmes with a minimum of institutional or DTE control. In this regard, a greater involvement of the
Examination Officer within the VTEI should be called for. However, the appointment of Examination Officers who would be solely responsible for quality assurance measures in the VTEIs, as currently practiced in Brunei is in contrast to Dale’s et al. (1997) finding that it is fundamental to the quality assurance philosophy that the responsibility for quality not be allocated to specific individuals. The quality assurance approach traditionally, according to Dale’s et al., allocates responsibilities for quality to a quality assurance coordinator and a quality assurance committee, so only certain individuals are aware of the quality assurance activities. As a result, the details and outcomes of quality assurance programmes are often not known by all the teachers. This was evident in this study, when a few teachers declared that their institutions had no Examination Officer, and in other cases, highlighted that nothing had been done by their Examination Officer in their institutions.

The DTE might consider setting up a quality improvement team, with specific responsibility for reviewing quality across the VTEIs and for fostering a quality culture in which individuals would take responsibility for quality rather than rely on formal systems and procedures. This body should be given the job of overseeing quality in all areas, both academic and administrative. Its primary role would be to assist VTEIs and units in the DTE to establish good practice in assessing and improving existing quality systems. Members of the team could be chosen from middle management in the DTE and VTEIs. As suggested by Robertshaw (1997), when the quality improvement team body visit individual VTEIs or units in the DTE, the emphasis should be placed on assisting the institutions and units, rather than auditing them, on the basis that ownership of the conclusions of the visit must ultimately lie with the institution or unit.
Changing the role of the external moderators

Another major outcome of the study is that the external moderation system is still perceived as the most preferred type of quality assurance in general, as well as for the assessment process. The study revealed a consensus among stakeholders that while the external moderation system needs to be continuously supported, and occasionally monitored, it remains an essential part of the Brunei VTE system. A few respondents in this study, both administrators and teachers, suggested that the role of the external moderators may need to be changed to act more as consultants or auditors rather than dealing directly with students’ assessment processes. This would be similar to that of moderators who befriend and advise the course team rather than that of external examiners who come in at the end to check standards. A few administrators and teachers also suggested that the role of external moderators may also be reviewed to focus more on aspects of reviewing or mentoring internal moderators and internal auditors for the quality assurance system.

In considering the type of changes that can be made to the system, a study conducted by Hannan and Silver (2004) about the way the United Kingdom external moderation system changed could be used as a guide. They described how external examiner/moderator appointments in the United Kingdom are no longer senior academics. Many more appointments are now drawn from middle rank teaching staff, and with the increased proportion of vocational related programmes, an increased number of external appointees from industry and the professions are appointed. This approach was also suggested by a number of respondents of this study. This change would be more relevant to Brunei’s VTE as graduates from VTEIs are employed in the vocational and technical related fields. Brunei’s VTE
could also learn from Wilmut and Macintosh’s (2001) description of the new brand of external moderators, who have two roles in respect to securing, maintaining and enhancing quality. These roles include ensuring educational systems and processes are developed to ensure consistently high standards in institutions and policing the actual operation of these systems and processes on an ongoing basis.

The DTE could also look at strengthening local expertise by creating a Brunei-wide pool of recognised academic staff from which all VTEIs would select their external moderators. It is suggested that the pool to be managed by the BDTVEC who could also be responsible for selecting its members. This recommendation is consistent with Hannan and Silver’s (2004) description of the United Kingdom’s approach. In order to achieve consistency of approach by moderators, the United Kingdom system has suggested that moderators undergo a training process which could include thorough familiarisation, training and preparation, including a trainee/apprenticeship model for new moderators. However, as mentioned in a report by the National Committee of Inquiry into Higher Education (1997), this compulsory period of training may not be necessary because experienced academics do not need any training to play that role.

A majority of stakeholders in this study, however, agreed that this approach (using local moderators) should only be implemented after careful consideration. Stakeholders, both administrators and teachers, believed that the issues to be considered are the availability of local or expatriate staff, people from industry with relevant expertise and knowledge, and the development of a framework for its implementation. Brunei, as a small country with a small population (see Appendix
A) may face some difficulties in finding suitable local moderators. Similar problems were faced in Lithuania (Cizas, 1997) and Hungary (Michelberger, 2002). These problems included the difficulty in selecting peers due to conflict of interests between experts and the field of expertise. The academic community in Brunei, as in Lithuania and Hungary is small, creating the ‘small country’ effect (Michelberger, 2002, p. 1) which means that academics within disciplines are known to each other, as is their work. Important obstacles are the relationships of blood, friendship and co-operation which usually unite a great part of the academic community in some teaching and research areas. As a consequence, the danger would be that potential local moderators already have preconceived ideas of the quality of a department to be reviewed. Another problem in Brunei VTE is related to the fact that some study programmes are unique to an institution, a situation which may result in complacency. Almost all the individuals who would be able to evaluate such a programme are closely associated with it.

It is a major recommendation of this study that if the external moderation system is to be continued, either in its existing or a modified form, the positive aspects of the system that have been identified be strengthened and emphasised in any future developments. The DTE and its VTEIs would also need to address the negative aspects of the system that have been identified in this study.

Having discussed the major findings of the study and their implications for the future direction of Brunei’s VTE in this section, the next section will outline the limitations of the study.
7.3 Limitations of the study

This study has a number of limitations. These refer to the broad approach, the context, the sample, the data collection methods and the duration of the study. Each limitation will be discussed in turn.

One of the most obvious limitations of this study is its very broad approach to the issue of quality assurance in general and in particular, the quality assurance of the assessment process in VTE in Brunei. Whilst this has enabled the researcher to explore the effectiveness of the quality assurance system of the assessment process as well as the effectiveness of using the different data collection techniques (both quantitative and qualitative), the results represent mainly a set of indicators rather than a comprehensive and exhaustive study. Nevertheless this approach has been useful to maximise the time and resources available. A constant concern with this research was to ensure that the scope of the subject matter was contained, and the amount of documentation and information collected was manageable and relevant. This issue was addressed by the researcher continually reminding himself of the focus of the study, the need to limit the number of issues explored, and through discussions with supervisors and colleagues.

Temporal limitations relevant to this study included the emergent nature of the environment under investigation. At the time of this research, quality assurance issues were very recent developments in Brunei, and even over the course of the study, new developments occurred. Amongst these was the development and implementation of the ‘Assessment process and quality assurance’ guidelines, the planning and establishment of a Quality Assurance Division, Quality Assurance
Unit and Quality Assurance (academic) Unit in the DTE. Some VTEIs also introduced certain quality assurance measures such as guidelines for examinations for students and invigilators, common examinations periods within institutions and external monitoring of private VTE providers. Participants’ experiences and perceptions were expected to change in line with these developments. To address this limitation, the developments occurring in the research site (VTE context) were explicitly described as they related to the study. This included informing readers that the interviews were conducted when the ‘Assessment process and quality assurance’ guidelines were still in the development stage while the questionnaires were distributed just after the distribution and the implementation of the guidelines. This was done so that readers could make their own judgement regarding the researcher’s interpretation of the findings.

Another limitation is related to the context in which the study was conducted. As the researcher and all survey participants are DTE employees, this could be perceived as potentially inhibiting free expression of perceptions and feelings. Although the researcher does not consider this to be a major problem, as various measures were taken to address this issue, it remains a possible limitation. An issue related to this aspect is that the researcher himself undertook all tasks associated with the research, including developing the methodology, interviewing respondents, gathering data and assessing findings. The researcher may have formed an impression of individuals and/or institutions, which favourably disposed him to the practices of particular stakeholders and institutions, or conversely, negative impressions may have been formed.Undoubtedly impressions were formed about individuals, VTEIs and the DTE. Care was therefore taken to substantiate conclusions when analysing the data,
by presenting them to the supervisors and research colleagues for comment. In that way, unintended bias was hopefully kept to a minimum.

In addition, because of the lack of relevant established research instruments, for example, questionnaires and interview protocols on perceptions on quality assurance in general and the assessment process in particular, especially in the VTE context, the researcher designed original instruments for this study. To address issues of reliability and validity, all instruments were piloted and refined based on feedback, preliminary analyses and discussions with the researcher’s supervisors and colleagues. Furthermore, using several data sources provided a way to assess consistency or inconsistency in administrators’ and teachers’ reports of their perceptions. This was expected to add to the strength of the evidence provided, and provided some triangulation.

This study involved only one period for data collection. The patterns of stakeholders’ perceptions would have been better described if data had been collected from the same cohort at several points in time, that is, as a longitudinal study (Cohen et al., 2000). A longitudinal research design, however, would have placed demands beyond the scope of this study. Due to time constraints of doctoral research, a cross sectional research design was the best alternative available.

Another limitation was the questionnaire response rate. The low questionnaire response from one VTEI was of some concern, even though several strategies were implemented to maximise the response rate. The response rate may have been improved with a second distribution of the questionnaire and perhaps more careful consideration made to the time of its distribution. The relatively low response rate
may thus limit generalisability of the results for that institution. Nevertheless, since
data were grouped according to the two groups of stakeholders, administrators and
teachers, from the five VTEIs, the low response rate of one VTEI would have little
impact on the overall results (the overall response rate was 69%).

The contact point for the VTEIs survey was the Deputy Principal (Education &
Training) of the institutions. The researcher also relied on a Department Head in one
of the VTEIs to distribute the questionnaires. These staff members were responsible
for distributing the questionnaires to their teachers who matched the criteria
provided for them. Although it was confirmed that all survey respondents met the
survey criteria, the inclusion of those staff members who were likely to respond to
the questionnaire and those who were likely to respond in a way that would enhance
their department’s image was a possible bias. Fortunately, since the survey was
conducted in five VTEIs, the risk of having such an issue would not have been
prominent. The use of a mixed method approach also helped to strengthen the
research programme. As suggested by Bryman (1988), the results of the quantitative
study were compared with, supported, and meaningfully enriched by the findings of
the qualitative study.

The survey questionnaire was presented in English rather than in Malay language. It
was anticipated that respondents would have no problem in understanding and
responding to it. When developing the questionnaire, the researcher thought that due
to the fact that all VTE teachers and administrators were graduates from foreign
universities, or the local university or institutions which use English as their medium
of instruction, such an issue should not be a problem. The questionnaire survey was
also piloted with a number of teachers, and changes were made to simplify the
language and avoid misunderstandings. However, feedback from a small number of respondents after completion of the questionnaire indicated that such problems did arise occasionally. In future research, this issue could be overcome by producing a second questionnaire in the Malay language, with respondents given the choice of choosing either survey.

Despite these limitations, this research has substantially deepened the knowledge base related to quality assurance systems in general, and the Brunei VTE assessment process in particular. The research raised issues that are worthy of further debate, and highlighted areas that require attention within the VTE. The next section will look at the study findings in relation to further research.

7.4 Implications for further research

In Brunei VTE, the issue of quality assurance had previously received little attention. Consequently, the findings of this study were intended to provide valuable baseline information for VTE administrators and researchers on quality assurance planning and its implementation in Brunei’s VTE.

This study was intended to be broad in scope, covering stakeholders’ understanding of the term quality and the significance of quality assurance measures. It assessed the extent to which quality assurance measures have been utilised by the Department of Technical Education (DTE) and its Vocational and Technical Education Institutions (VTEIs) and it also examined the challenges facing DTE and its VTEIs in ensuring quality VTE. In future research, a more in-depth study of specific areas
of quality assurance is recommended, involving wider categories of VTE stakeholders in order to provide a more comprehensive view of the topic being investigated. This study utilised selected administrators and teachers. Eliciting other stakeholders' perceptions is also required if a quality assurance system is to be successfully developed and implemented. For example, students and employers are important stakeholders in Brunei’s VTE and their views will also be important to consider when determining the type of quality and the purpose of quality assurance that needs to be implemented. As the ultimate beneficiaries of education services, their views on the quality of the education, in general, and the quality of the assessment process are important. Perhaps different themes would have emerged if they had been included in this research. Further empirical studies are required on this issue.

While the main outcome of this study was the gathering of data and the utilisation of information for the improvement of existing practices in a VTE quality assurance system, in particular the assessment process, almost equally important is the formulation of quality assurance policies which are relevant and desirable for the future needs of Brunei. Future research should be conducted that builds on the results of this study to determine the appropriate quality assurance system for VTE in Brunei, in line with the needs of the government, society, employers and students.

The study also revealed that the two groups of stakeholders identified and were familiar with the concept of good leadership and the importance of leadership in a quality assurance system. They realised that the lack of experienced and knowledgeable leaders in quality and quality assurance issues was the main challenge confronting the DTE and its VTEIs in the successful implementation of a
quality assurance system. There is, however, scope for further study of how the leadership situation in the DTE and its VTEIs can be improved in order to effectively develop and implement a quality assurance system.

A longitudinal study would be particularly appropriate to examine the process of implementation of the quality assurance of the assessment process. Longer term surveying of the DTE and the VTEIs could also be undertaken to determine whether any evidence of a culture change has taken place. A longer term study may unveil a deeper dimension and highlight the dynamic and evolving nature of the quality assurance system.

This study also acknowledged administrators’ and teachers’ dissatisfaction with the current quality assurance measures especially with the absence of a structured comprehensive quality assurance system. It also highlighted their lack of understanding of the recently introduced and adopted quality assurance measures, such as the ‘assessment process and quality assurance’ guidelines. Further research could also be carried out to examine the relationship between the perceptions and satisfaction levels of stakeholders of the quality assurance system to find out if stakeholders’ satisfaction levels increase as they become more familiar with the implementation of the current quality assurance mechanisms adopted by the DTE and the VTEIs.

Finally, the study stressed that teachers’ attitudes and attributes have a major influence on the implementation of a quality assurance system for the assessment process. Stakeholders in this study believed that the successful implementation of this process will depend on teachers’ qualifications, competency, commitment, and
professionalism. It is therefore recommended that further research be conducted on these attitudes and attributes and solutions sought to address them.

7.5 Conclusion

It is hoped that this detailed examination of the quality assurance of the assessment process in VTE in Brunei, and its implications for the future direction for the DTE and its VTEIs will be carefully examined by the nation’s vocational education decision makers. Given the findings of the present study, there is reason to be optimistic about the future of the quality assurance system in general, and the quality assurance process of the assessment process in VTE in Brunei. However, improvement requires courage, hard work, and commitment at all levels of the education community in the DTE and the VTEIs in order to transform the dream of excellent education through a systematic quality assurance system into a reality.
REFERENCES


Australian National Audit Office. (2001). Assessment and evaluation in higher education.


304


Milenkovic, Z. (2003). The establishment of quality assurance mechanisms at the University of Nis and other systematic changes in Serbian higher education. *Higher Education in Europe*, XXVIII(3), 335-338.


314


8.1 Introduction

This appendix provides background information on the vocational and technical education system in Brunei. It was decided that this appendix would be devoted entirely to the context of the study in view of its importance in understanding the organisation and operation of VTE in Brunei. A detailed description is also important for the understanding of the quality assurance process in its natural setting and for generalisation to other settings by other researchers. This information is useful and important, especially for international researchers who may not be familiar with the context of this study and could therefore find it difficult to make an assessment as to the value of the study’s findings for use in their own context.

This appendix will first describe the education system in Brunei in Section 8.2. Sections 8.3 and 8.4 describe in some detail, information about the Department of Technical Education (DTE) and the Brunei Darussalam Technical and Vocational Education Council (BDTVEC), the agency responsible for accreditation, certification and awards for VTE programmes in Brunei respectively. Section 8.5
looks at information about the VTEIs in Brunei, their developments as well as description of the five VTEIs involved in this study. Sections 8.6, 8.7 and 8.8 present information on VTE capacity and on employment situations in Brunei, the VTE programmes accreditation and quality assurance mechanisms, and the VTE programme articulation, certification and assessment systems respectively.

8.2 Brunei Darussalam’s education system

Human resources are central to the successful transformation of Brunei into a diversified industrial economy. As in most developing nations, there is a shortage of a skilled workforce in the country. Therefore, a great emphasis is placed upon education. Brunei’s education philosophy is founded on the National Philosophy of a Malay Islamic Monarchy, that is to establish an effective, efficient and equitable system of education that should be able to produce an educated workforce. This workforce will contribute to the development of a progressive and peaceful nation where the emphasis is based on the following: Malay as the national language and culture, Islamic faith and values, and loyalty and allegiance to the monarchy and state (MOE, 2003).

The formal education system in Brunei’s involves a 7-3-2-2 pattern; representing the number of years at primary, lower secondary, upper secondary and pre-tertiary levels respectively. The structure of the education system is illustrated in Figure 2.1. The purpose of examining the structure of the education system in Brunei is to provide a general idea of the system itself and the position of VTE in relation to the whole education system.
Figure 8.1  Current education system in Brunei Darussalam
Primary education in Brunei is divided into three stages, namely pre-school, lower primary and upper primary. The duration of primary education is seven years, including one year at pre-school. Primary education aims to give children a firm foundation in the basic skills of writing, reading and arithmetic as well as to provide opportunities for their personal growth and character development. On completion of their seven years of primary education, pupils are required to sit for the Primary Certificate of Examination (PCE) at the end of Primary Six. On completion of Primary Six, pupils enrol in the lower secondary level. The duration at this level is three years. At the end of the third year, students sit for the Penilaian Menengah Bawah (PMB) or Lower Secondary Assessment examination. On completion of the PMB examination, students have the following options; to pursue two to three years of upper secondary education to prepare them for the Brunei Cambridge General Certificate of Education (GCE ‘O’ Level) examination, or to pursue craft and basic technical courses at one of the technical or vocational institutions, or find employment.

Based on performance in the PMB examination, students will be channelled into a Science, Arts or Technical stream. The intention is to provide students with opportunities to continue in full-time education after sitting for the PMB. The duration of schooling at this level is either two or three years. Education at the upper secondary level is general in nature with some provision for specialisation in science, arts and technical fields.

At the end of the second year, high academic achievers may sit for the Brunei-Cambridge GCE Ordinary level (GCE ‘O’ Level) examination. Those students with
adequate and relevant ‘O’ Level passes may proceed to do a further two-year Pre-
University course leading to the Brunei-Cambridge Advanced Level Certificate of 
Education examination (GCE 'A' Level). Others may decide to opt for employment 
or undergo education and training programmes at the University of Brunei 
Darussalam, technical colleges, vocational schools, the nursing college or they may 
study abroad. Primary, secondary and tertiary education in government schools and 
institutions is free for citizens and permanent residents of Brunei.

Brunei has a very small population with approximately 383,000 people in 2006 
(Othman, 2007). Forty percent of the total population in 2006 was below 20 years 
old, 2.7 percent were above 65 years of age, while the remaining, aged 20 to 64 were 
in the employment age category (economically active), made up of 57.8 percent of 
the population (Othman, 2007). The annual population growth rate in 2005 was 
about 1.9 percent (Stephen, 2006). School children and youth throughout Brunei 
have good access to public schools. The network of approximately 160 primary and 
secondary schools augmented by 79 non-government schools, serves all parts of the 
country. Private education is a significant alternative to primary and secondary 
education provided by the government and accounts for about 30,165 students 
(MOE, 2003). The scope of the educational system in Brunei can be depicted as 
follows:
Table 8.1: Scope of Brunei Darussalam’s educational system (MOE, 2003)

<table>
<thead>
<tr>
<th>Institutions</th>
<th>Teachers</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-School and primary</td>
<td>131</td>
<td>2,988</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary and Pre-University</td>
<td>29</td>
<td>2,913</td>
</tr>
<tr>
<td>*Technical, Vocational and</td>
<td>8</td>
<td>501</td>
</tr>
<tr>
<td>Nursing college</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Brunei Institute of</td>
<td>1</td>
<td>89</td>
</tr>
<tr>
<td>Technology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>University of Brunei Darussalam</td>
<td>1</td>
<td>303</td>
</tr>
<tr>
<td>Private schools</td>
<td>79</td>
<td>1,840</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>249</td>
<td><strong>8,634</strong></td>
</tr>
</tbody>
</table>

*Note – (*) These institutions are under the jurisdiction of the Department of Technical Education.

8.3 The Department of Technical Education (DTE)

The previous section looked at Brunei’s education system, in general. This section looks at the DTE, the agency responsible for VTE in Brunei, giving background information of the development and set-up of the department, its roles and responsibilities.

The Government of Brunei realises that a skilled and educated workforce with appropriately trained tradespeople and technicians in adequate numbers is a necessary co-requisite for growth and development. The importance of technical and vocational education as a means of assisting in economic and social objectives was
recognised in the National Development Plan. Through its National Development Plan, the Brunei Government has given considerable priority to the improvement and expansion of technical and vocational education and training in order to respond to the economic challenges of the future (BDENDP, 2000).

The first two trade schools were established in 1970 and with this, VTE was formally introduced in Brunei. These schools first offered craft level programmes to meet the needs of Form Three school leavers. In 1982, technician level programmes were introduced to meet the needs of Form Five school leavers. From then on, in the last two decades, major changes have been implemented in the system to enhance the capacity of VTE in contributing to the development of human resources. In November 1989, a Vocational Programme Development Centre (VPDC), now known as the Programme Development Section (PDS), was established to produce locally designed curriculum materials. This was prompted by a desire to match skills training needed by local industries. Various Programme Development and Evaluation Committees (PDECs) were formed, the members of which were drawn from industry and VTEIs. These committees have been responsible for the development and evaluation of curriculum materials. Effort has been made to involve employers in decision making to ensure that VTE meets their needs as well as individual’s needs.

In May 1991, the Brunei Darussalam Technical and Vocational Education Council (BDTVEC) was established as the authorized body for accreditation, certification and validation of VTE programmes. In recognition of the growing importance of VTE in meeting the manpower needs of the country, the Ministry of Education (MOE) established a separate Department of Technical Education (DTE) in January
1993. Prior to this, the DTE was administered by a section under the jurisdiction of the Department of Schools. This separation recognised the need for a more flexible and flatter management structure to ensure effective implementation of VTE programmes. It was established with two main aims: to plan, coordinate, and evaluate the implementation of VTE and training programmes in addressing the socio-economic demands of Brunei and to support and promote the development of human resources through provision of VTE services to the community, students, government, and the private sector (MOE, 2006).

The DTE has the following responsibilities (DTE, 2005a):

i. ensuring that VTEIs offer programmes relevant to the socio-economic development of Brunei,

ii. evaluating and maintaining appropriate standards through a regular system wide review of VTE and training programmes,

iii. promoting VTE programmes which provide people with the skills needed for creating their own enterprises in order to create jobs and future economic expansion,

iv. establishing apprenticeship training schemes to meet the skill requirements of the economy, in cooperation and collaboration with the public and private sectors,

v. devising and cooperating in the development of secondary school curricula and subjects leading to vocational careers and further VTE,

vi. providing students with the opportunity to explore career options to help them realise their capabilities and potential for success in the world of work,
vii. promoting greater access to learning and career opportunities by bridging the gap between academic and VTE,

viii. providing a secretariat to the BDTVEC and advising the Council on areas of work to be covered, including the establishment and interpretation of Council policy in the promotion and provision of VTE,

ix. conducting research and providing information on manpower training issues.

At present, DTE is divided into three divisions, namely, the Professional Division, the Continuing Education Division and the Programme and Research Division. The present organisational structure of the Department is shown in Figure 8.2.

The Certification and Assessment Unit within the Programme and Research Division is responsible for institutional accreditation, programme accreditation, student registration, certification and assessment, external moderation, preparation of BDTVEC meetings and documentation of BDTVEC policies, procedures, rules and regulations.

In 2001, the DTE established the National Programme Advisory Committee (NPAC). The NPAC consists primarily of private and public industry personnel and relevant specialists from the DTE. The committee develops and evaluates the VTE curricula. A network of councils, committees and advisory bodies, with an equal representation of parties, work closely together with the DTE on almost all aspects of VTE, and at all levels of the VTE system. One of the main objectives of involving social partners is to ensure the relevance and quality of VTE programmes in relation to the labour market. These committees are responsible for the continuous adaptation and development of the VTE programmes. The committees also monitor
Figure 8.2 Organisational structure of the Department of Technical Education (July 2006)
the skills development in the labour market, and recommend changes to existing programmes on the basis thereof. The role of the social partners is to ensure that VTE matches the needs and demands of the enterprises and the labour market to both national and local levels.

8.4 The Brunei Darussalam Technical and Vocational Education Council (BDTVEC)

As this study is more closely related to the roles and responsibilities of the BDTVEC, this section will describe the Council further. As mentioned previously, the BDTVEC is the technical and examination body in Brunei, established for the certification, accreditation and validation process of VTE programmes. The objective of the Council is to ‘provide a flexible and effective system of certification and accreditation of technical and vocational qualifications which is responsive, relevant and accessible to the local needs of industry, individuals, society and the economy of Brunei Darussalam’ (DTE, 2005a). The Council assumed its main principal responsibility to provide Brunei citizens with employment related technical and vocational qualifications they need, and to develop competence in their choice of career or special interest (Williams, 1993).

The BDTVEC is chaired by the Deputy Minister of Education and its members are representatives from various government agencies and the private sector. The Council maintains close contact and liaison with both public and private sector agencies whose work and programmes may have relevance to technical and vocational education and training needs. The BDTVEC has developed a unified
system of approving programme submissions, assessing standards in programme development, and awarding certificates and diplomas. The establishment of the accreditation system ensures a high degree of national credibility and recognition by educational and professional bodies, employers and students, both locally and internationally. It works towards providing acceptable national standards whilst at the same time serving the needs of industry, commerce, government and professional organisations in Brunei.

The recent rapid growth in population and the equally rapid local economic and industrial developments resulted in an increase in demand for varied and quality VTE programmes. This in effect, made the overseas accrediting bodies less responsive in meeting the specific local demands. These developments, together with a strong desire on the part of the government to move away from the total reliance on British examining bodies prompted the establishment of the Council to take over the responsibility of awarding certificates and diplomas. When VTE was first introduced in 1970 and up until 1992, all technical and vocational qualifications were provided by foreign accrediting bodies such as the Business and Technology Education Council (BTEC), City and Guilds (C&G) of the London Institute, the Royal Society of Arts (RSA), the Pittmans Examination Institute and the London Chamber of Commerce Institute (LCCI). The first programme submissions for the Council awards were introduced in August 1992, and the process of full take-over from foreign awards was successful in 1995 when the BDTVEC accredited and awarded its own VTE qualifications from the craft, technician level programmes and all programmes at the Higher National Diploma (HND) level. Today, the BDTVEC is the only agency in Brunei responsible for the certification and accreditation as
well as validation of VTE programmes. To date, it has approved 84 programmes which meet the requirements of local industry and student needs (DTE, 2004). They consist of 36 craft programmes (17 National Trade Certificate 2 (NTC2), 16 National Trade Certificate 3 (NTC3), 3 National Vocational Certificate (NVC)) and 48 technical programmes (7 Higher National Diploma (HND), 27 National Diploma (ND) and 14 Pre-National Diploma (PND))

The following items are incorporated in the functions, duties and responsibilities of the BDTVEC (DTE, 2005a):

i. Responsibility in evaluating and reviewing the policies of VTE to ensure a unified system of technical and vocational courses and programmes, devising or approving courses and programmes to be offered by public and private VTE providers, establishing and assessing national competency standards by employing expertise from government agencies, industry, commerce, professional organisations and instructional staff to ensure a high quality of course/programmes which are able to respond to the changing circumstances and technology and to the needs of employers,

ii. Regulating assessment to be conducted by VTE providers for certification purposes,

iii. Awarding national VTE qualifications,

iv. Regulating and accrediting VTE providers,

v. Maintaining and extending relationships with foreign accrediting, validating and awarding bodies to ensure wider recognition and greater student mobility and progression to higher levels of professional qualifications,
vi. Maintaining quality assurance systems and the standards of technical and vocational programmes through employment of external moderators,
vii. Marketing and promoting greater awareness and interest among prospective students, employers and the community of VTE and training and qualifications,
viii. Establishing and providing effective trade-testing infrastructure and services for the workforce of the private and public sectors,
ix. Enhancing collaboration, cooperation and partnership between technical and vocational providers and industrial training organisations.

This section looked at the objectives of the BDTVEC, as well as its role and responsibilities. The next section will look at the VTEIs in Brunei, focusing on the five VTEIs involved in this study.

8.5 Vocational and Technical Education Institutions in Brunei

At present, there are eleven government-financed and controlled VTEIs in Brunei. Nine of the institutions are under the day-to-day administrative authority of the Ministry of Education (MOE) managed through its Department of Technical Education (DTE). These institutions are Maktab Teknik Sultan Saiful Rijal (MTSSR), Maktab Kejuruteraan Jefri Bolkiah (MKJB), Sekolah Vokasional Nakhoda Ragam (SVNR), Sekolah Vokasional Sultan Bolkiah (SVSB), Pusat Latihan Mekanik (PLM), Sekolah Vokasional Wasan (SVW), Sekolah Perdagangan (SP), Institute Technology Brunei (ITB) and Maktab Jururawat Pengiran Anak Puteri Hajah Rashidah (MJPAPHR). The Handicraft Training Centre and the Youth
Development Centre are under the administrative authority of the Ministry of Culture, Youth and Sports.

The Brunei Ministry of Education uses four main approaches in the provision of VTE, namely, occupational-based programmes offered by VTEIs, selected occupational based programmes offered by selected secondary schools, programmes provided in secondary schools as part of the general curriculum offered as optional and examinable ‘subjects’ such as Woodwork and Home Science, and programmes offered through non-formal approaches such as on-the-job training and continuing education. VTE started in 2005 in selected secondary schools, and provide pathways to further vocational training. Schools programmes took into account the national skills shortages. Work is currently underway to ensure that assessment, accreditation and certification arrangements for VTE in secondary schools are aligned with BDTVEC.

From conception, the aim of the VTEIs in Brunei was to meet the technical and vocational, industrial and manpower goals, as well as the general educational needs of the citizens of Brunei. It is the view of the Government that the future of the economic growth and productivity lies in education and training, and that citizens must be prepared to accept the multitude of skilled jobs available today, and the even greater number that will arise in the future through industrial diversification. In keeping with the recognition that the true wealth of the country lies in an educated population, and that the most profitable investment rests in the education of the people, the VTEIs in Brunei play a three part role in the education and training field. They provide technical and vocational courses intended to meet the occupational and career needs of individuals, manpower training programmes intended to meet social
and economic policies of the government, and industrial training programmes intended to meet the skills needs of employers (MOE, 1992).

The first five VTEIs under the jurisdiction of the DTE mentioned earlier were involved in this study and they are described individually. Their selection was based on two factors. These factors included: (a) these institutions offered the National Trades Certificate, Pre-National Diploma and National Diploma programmes (ITB offered Higher National Diploma courses while MJPAPHR only offers Nursing Diplomas and certificates), (b) they were established VTEIs (SP started operation in January 2006 and SVW only started offering programmes in January 2005).

i. Maktab Teknik Sultan Saiful Rijal (Sultan Saiful Rijal Technical College, MTSSR)

Maktab Teknik Sultan Saiful Rijal was established in 1985. It offers 24 programmes at the technician level and nine programmes at the craft level. This wide range of programmes includes Engineering, Building Trades, Construction, Computer Studies, Science and Hospitality & Tourism. In addition to full time courses, the College offers a number of ad-hoc part time courses for the purpose of upgrading and retraining. These courses provide supplementary skills and knowledge in order to increase the versatility and occupation opportunities while improving standards of performance. Enrolment at the College in January 2006 was 1036, comprising 635 males and 401 females. Courses at the College are delivered and administered by 202 full-time instructors. Of this total, 147 are locals and 55 are expatriates. Courses are offered by the nine departments, with three departments servicing these departments in Mathematics, English language and Religious Knowledge.
ii. Maktab Kejuruteraan Jefri Bolkiah (Jefri Bolkiah College of Engineering, MKJB)

Maktab Kejuruteraan Jefri Bolkiah was originally established as an engineering craft trade school. Over the ensuring years, it continued to expand and in 1987 it was upgraded to a College of Engineering.

The College offers a comprehensive range of craft, technician and ad-hoc courses developed to meet the demands of the public and private sector of Brunei. Maktab Kejuruteraan Jefri Bolkiah offers 13 technician level programmes and two programmes at the craft level. These courses are listed in Table 8.2. Courses are offered through seven major departments within the College organisational structure and these departments include: Air-conditioning and refrigeration, Plant Engineering Automotive, Electrical, Welding and Fabrication, and Servicing Departments. In January 2006, a total of 498 students are attending the various programmes at MKJB. Courses at the College are delivered and administered by 103 teaching staff comprising 66 local instructors and 37 expatriates.

iii. Sekolah Vokasional Nakhoda Ragam (Nakhoda Ragam Vocational School, SVNR)

Sekolah Vokasional Nakhoda Ragam began its operation in early January 1993. It provides craft level training programmes for a one and a half year duration to students with Secondary III and PMB levels of attainment who enter directly from secondary schools. The vocational school offers a comprehensive range of programmes in a modular format, designed to meet the specific skill requirements of employers.
A total of 18 craft level programmes are offered by the four departments at Sekolah Vokasional Nakhoda Ragam. These programmes are in the fields of Bricklaying and Concreting, Carpentry and Joinery, Electrical, Electronics, Furniture and Cabinet Making, Painting and Decorating, Plumbing and Pipefitting, Hairdressing and Dressmaking and Tailoring. In January 2006, there are 180 students attending various programmes offered by SVNR. There are 51 teachers, 39 locals and 12 expatriates.

v. Sekolah Vokasional Sultan Bolkiah (Sultan Bolkiah Vocational School (SVSB))

Four technician level and 14 craft level programmes are offered by four Departments at Sekolah Vokasional Sultan Bolkiah. These programmes are in the fields of Clerical Studies (Accounts Clerk and General Office Clerk), Dressmaking and Tailoring, Machining, Motor Vehicle Mechanics, Refrigeration and Air-Conditioning, Vehicle Body Engineering, Welding and Fabrication, Computer Studies and Business Studies.

A total of 407 students are attending the various programmes at SVSB. There are 50 teaching staff, consisting of 33 locals and 17 expatriates.

iv. Pusat Latihan Mekanik (Mechanical Training Centre, PLM)

The Pusat Latihan Mekanik was opened in 1986. The centre was a gift to the Government of Brunei from the Mitsibushi Corporation of Japan. The Pusat Latihan Mekanik offers craft level programmes in the principles of operation, maintenance and repair of heavy construction equipment and are of one or one-half years.
duration. In January 2006, there are 12 teaching staff at this centre. The student population is 74.

Table 8.2 Summary of programmes offered, students and staff population in the five VTEIs under study (DTE, 2006b)

<table>
<thead>
<tr>
<th>Programmes offered</th>
<th>MTSSR</th>
<th>MKJB</th>
<th>SVNR</th>
<th>SVSB</th>
<th>PLM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>17 programmes at the National Diploma level (ND), 7 programmes for the Pre-National Diploma (PND) and 9 programmes at the Craft level in Engineering, Building Trades, Construction, Computer Studies and Hospitality &amp; Tourism</td>
<td>9 programmes at the National Diploma level, 4 programmes for the Pre-National Diploma and 2 programmes at the Craft level in Air-conditioning and refrigeration, Plant Engineering, Automotive, Electrical, Welding and Fabrication</td>
<td>18 craft level programmes in Bricklaying and Concreting, Carpentry and Joinery, Electrical, Electronics, Furniture and Cabinet Making, Painting and Decorating, Plumbing and Pipefitting, Hairdressing and Dressmaking and Tailoring</td>
<td>4 technician and 14 craft level programmes in Clerical Studies, Dressmaking &amp; Tailoring, Machining, Motor Vehicle Mechanics, Refrigeration &amp; Air-Conditioning, Vehicle Body Engineering, Welding &amp; Fabrication, Computer Studies and Business Studies</td>
<td>2 craft level programmes in Heavy construction equipment</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Student population (2006)</th>
<th>1036</th>
<th>498</th>
<th>180</th>
<th>407</th>
<th>74</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Staff population</th>
<th>202</th>
<th>103</th>
<th>51</th>
<th>50</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>L= 147, E = 55</td>
<td>L= 66, E = 37</td>
<td>L= 39, E = 12</td>
<td>L= 33, E = 17</td>
<td>L=11, E =1</td>
<td></td>
</tr>
</tbody>
</table>

Note: L - local staff, E - expatriate staff.
8.6 VTEIs’ capacity and employment scenario

This section will describe the capacity of the VTEIs in terms of the student population. It will also describe the employment scenario for these students. Currently, the total number of students studying in all VTEIs (excluding the Continuing Education Section) is 3,525 (DTE, 2006a). Table 8.3 shows the student population in the five VTEIs included in the study.

### Table 8.3
Total number of students for the years 2002-2006 in the five VTEIs in this study (DTE, 2006b)

<table>
<thead>
<tr>
<th>Institutions</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006 (Jan)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTSSR</td>
<td>1,287</td>
<td>1,407</td>
<td>1,321</td>
<td>1,160</td>
<td>1,036</td>
</tr>
<tr>
<td>MKJB</td>
<td>676</td>
<td>783</td>
<td>793</td>
<td>686</td>
<td>498</td>
</tr>
<tr>
<td>SVNR</td>
<td>187</td>
<td>252</td>
<td>205</td>
<td>235</td>
<td>180</td>
</tr>
<tr>
<td>SVSB</td>
<td>294</td>
<td>270</td>
<td>382</td>
<td>402</td>
<td>407</td>
</tr>
<tr>
<td>PLM</td>
<td>59</td>
<td>46</td>
<td>61</td>
<td>65</td>
<td>74</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,403</strong></td>
<td><strong>2,758</strong></td>
<td><strong>2,862</strong></td>
<td><strong>2,548</strong></td>
<td><strong>2,195</strong></td>
</tr>
</tbody>
</table>

Since the inception of the BDTVEC in 1992, a total of 15,430 students have registered and enrolled in the various courses. Table 8.4 shows the number of students registered and graduated, according to programmes, from all the VTEIs.
Table 8.4  The number of students registered and graduated, according to programmes, from all the VTEIs up until January 2006 (DTE, 2005a; DTE, 2006a)

<table>
<thead>
<tr>
<th>Programmes</th>
<th>Number of students registered (DTE, 2006a)</th>
<th>Number of students graduated (DTE, 2005a)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NVC</td>
<td>657</td>
<td>314</td>
</tr>
<tr>
<td>NTC2</td>
<td>1388</td>
<td>691</td>
</tr>
<tr>
<td>NTC3</td>
<td>3534</td>
<td>1981</td>
</tr>
<tr>
<td>PND</td>
<td>3945</td>
<td>2599</td>
</tr>
<tr>
<td>ND</td>
<td>4529</td>
<td>2475</td>
</tr>
<tr>
<td>HND</td>
<td>1377</td>
<td>406</td>
</tr>
</tbody>
</table>

Based on student projection (MOE, 2003) and taking into account that about 20% of this figure will enrol in VTEIs, the projection of students completing Form Three and Form Five applying to the VTEIs in the years 2006 to 2017 will increase as illustrated in Table 8.5. This is not taking into account the number of applications from in-service students, both from the public and private sectors. Currently, the VTEIs (excluding ITB and MJPAPHR) can only accommodate a maximum of 4,000 students. The DTE’s key development indicator is to achieve the ability to accommodate around 20,000 students by 2024. Currently, the VTEIs are only able to offer programmes up to the National Diploma level. Higher level programmes need to be developed in these institutions. At present, ITB, the only institution offering Higher National Diploma programmes is not able to accommodate a higher number of students due to the lack of physical and human resources (DTE, 2005b).
The total employment figure for 2001 for Brunei was 146,254, of which 80,031 were local workers and 66,223 were foreign workers. Foreign workers constituted about 45% of the workforce (Department of Economic Planning and Development, 2003). Three quarters of the workforce in the public sector is local while the same proportion working in the private sector are foreigners. Most of the foreign workers are working in construction (more than 24,000), mining, quarrying and manufacturing (more than 9,000), wholesale and retail (more than 6,000) and community, social and personal services (more than 4,000). The demand for the labour force is expected to increase in the coming years. The projected manpower requirements for Brunei in the year 2011 is about 93,000 for low growth and 148,300 for high growth (EPU- manpower projection 1991-2011) and comparing this with the expected VTEIs 1500 graduates per year, assuming there is no increase in yearly production, VTEIs would be expected to produce about 15% of the projected manpower required for low growth or 10% of the projected high growth.

A greater proportion of the workforce will still have to be imported from outside Brunei for national development. In meeting the demands for more workers in the
future, the National Development Plans have emphasised the need to accelerate the human resource development of the country. One of the main long-term objectives of these plans is to ‘accelerate human resource development to meet the country’s demand of an increasingly sophisticated economy’ (BDSNDP, 1993, p.18). The strategies adopted by the government in achieving the human resource development objectives are focused on development and expansion of the national system of education and training, giving special emphasis to the vocational, scientific and technological fields, particularly the development of agriculture and industry.

Having described the VTEIs capacity and the employment scenario in Brunei, the next section will look at Brunei’s VTE programme accreditation and its quality assurance mechanisms.

8.7 VTE programme accreditation and its quality assurance mechanism

Brunei opted to use accreditation as its tool for quality assurance in VTE. The introduction of a common standard of procedures in programme development, certification and assessment has ensured consistent certification value and recognition between and within VTEIs.

The BDTVEC has developed a unified system of approving programme submissions establishing assessment standards and awarding certificates and diplomas. The localisation of programme awards has been prompted by the need to be more responsive to the demands of the local industry as well as students’ demand of quality and varied programmes in line with the diversifying economy.
Figure 8.3 shows the mechanisms for programme submissions and Council’s approval process. An expression of interest by either the Head of a VTEI/centre, NPAC or PDEC in conducting a programme will be made to the BDTVEC Secretariat in the form of a memo or letter. The BDTVEC secretariat will check programmes against the list of the Council’s approved programmes. The BDTVEC Secretariat will then request the Research and Evaluation Unit in the DTE to conduct a needs analysis/feasibility study.

![Figure 8.3 Mechanisms for programme submission and council approval process](image_url)

The need analysis study will be carried out in cooperation with the institution through an ad-hoc research committee. References will be made about the
programme requirements, the relevant ministries/departments or private companies, job title, expected salaries, potential annual vacancies, and all related costs. After the Research and Evaluation Section submits its findings and recommendation to the BDTVEC Secretariat, the Programme Development Section will mobilize the relevant PDEC or appoint members to a new PDEC to develop a programme guide in consultation with the NPAC. The PDEC will recommend the programme requirements which later will be submitted to the Council for approval. Once approved, the BDTVEC will forward the approved programme guide and application form to the Principal of the VTEI. The outcome of the council’s decision will be communicated to the institutional Principal through the Council’s Secretariat. The establishment of these mechanisms or schemes for programme submissions and awards ensures a high degree of national credibility and recognition by educational and professional bodies, locally and internationally, employers and students. The schemes promote student mobility and progression to higher-level qualifications.

It should be noted that similar procedures are being used for application for centre approval to run a programme, the development and formulation of policies governing the operation and regulation of programme certification, accreditation, assessment and articulation. The key feature in the formulation of these policies is the involvement of stakeholders in decision making through various programme committees and advisory bodies. The process of endorsement of policies by the Council follows after the process of consultation of the key stakeholders. This procedure does not only generate a high level of commitment among policy implementers in the implementation of the policy but also helps to disseminate information resulting in consistent action across the sections of the organisation.
Quality assurance and control mechanisms are built into the current VTE programme accreditation and awards. External moderators, as mentioned in Chapter One are appointed for a period of two to three years and they act as representatives of the BDTVEC, working in partnership with the VTEIs to provide a regular and constant review of BDTVEC provision. They help to make sure that VTEIs maintain the national standard of qualification, assess students’ performance in accordance with the Certification and Assessment Guidelines published by the BDTVEC, and have a clear commitment to ensure and improve quality.

The external moderators play a vital role in BDTVEC quality assurance strategies by regularly reviewing courses in operation and confirming that the programmes are being conducted as agreed with the BDTVEC. They also comment on the relevant curricula and syllabi, participate in the relevant departmental meetings, and check assessment practice and institutional procedures, particularly the internal moderation system, against BDTVEC requirements. At the end of each visit, the External Moderators are expected to submit a report to the Director of the DTE and the Secretariat of the BDTVEC. The report consists of a summary of the general comments for improvements arising from the visit in areas such as quality assurance and control, resources, learning and assessment (DTE, 2001).

This section looked at the system of approving programme submissions currently practiced in the DTE. It also described the quality assurance and control mechanisms in the current VTE programme accreditation and awards. The next section describes the programme articulation, the certification system, as well as the assessment system in the VTE in Brunei.
8.8 VTE programme articulation, certification and assessment system

VTE specialises in imparting to young learners the skills needed in the world of industry and commerce. Programmes are offered at well defined levels. In Brunei, VTE craft programmes are taken by students who have completed lower secondary education to prepare them to become semi-skilled or skilled workers. Students enrol for technical programmes upon completion of upper secondary education to prepare themselves for work as technicians and for progression to higher level technical studies. Figure 8.4 shows the progression chart in VTE in Brunei Darussalam.

![Progression chart in VTE in Brunei Darussalam](image-url)
The two categories of certification systems adopted by the BDTVEC are the National Trade Certification System for craft level courses and the Technician Certification System for technician level courses. The National Trade Certification System is classified into three categories: Grade 3 (semi-skilled), Grade 2 (skilled), and Grade 1 (master craftsman). The technician qualifications consist of two levels, Ordinary and Higher (senior technician). Ordinary level qualification is National Diploma and the higher level is Higher National Diploma. Two different methods of assessment reflect the two categories of certification mentioned in the previous subsection (BDTVEC, 2000). This was summarised in Table 8.6.
**Table 8.6  Method of assessment for craft level programmes and technician level programmes**

<table>
<thead>
<tr>
<th></th>
<th>Craft level</th>
<th>Technician level</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Continuous assessment</strong></td>
<td>Students are assessed by their teachers on every unit entirely by continuous assessment. The process requires the aims and performance objectives specified for each unit to be assessed with the number, type and weighting of assessment determined by the appropriate PDEC. Assessment components comprise a combination of assignments, practical tests and written tests/phase tests.</td>
<td>The assessment process ensures that all aims and performance objectives specified in the units are achieved. The minimum weighting of the continuous assessment component is 60% and may consist of any combination of written tests or phase tests, practical tests, assignments and oral tests or presentations. <strong>End Tests</strong> Students are required to sit for an End test in units with a value of 1.5 or higher. The maximum weighting of an End test is 40%. End tests cover all areas in the syllabus and may consist of any combination of written, oral or practical work.</td>
</tr>
<tr>
<td><strong>Individual projects</strong></td>
<td>Students are required to undertake and complete a practical project related to specific units at a level consistent with the level of the programme. Assessment of the project is based on the students’ ability to integrate and apply their knowledge, problem solving abilities and technical skills as specified in the assessment criteria established by the course team.</td>
<td>All ND students are required to undertake and complete a practical project related to the student’s essential units in the final year of the programme. It may be either individual work or group work. Assessment of the project is based on the student’s ability to integrate and apply his or her knowledge, problem solving abilities and technical skills as specified in the assessment criteria established by the course team. A project completion is essential for the award of a National Diploma.</td>
</tr>
<tr>
<td><strong>Work placement</strong></td>
<td>Satisfactory completion of supervised work placement is an integral part of the overall assessment for the successful completion of the training programmes. The implementation of the industrial training experience follows the guidelines and provisions set in the ‘BDTVEC Industrial Attachment Log Book’.</td>
<td>Satisfactory completion of supervised work placement is an integral part of the overall assessment for the successful completion of the training. The implementation of the work placement is according to the guidelines and provisions set in the ‘BDTVEC Industrial Attachment Log Book’. Training Log books are provided to individual students in order to record their daily work and must be submitted to the course tutor after the work placement.</td>
</tr>
</tbody>
</table>
8.9 Conclusion

Vocational and technical education in Brunei is seen as a substantial component of the nation’s education system specifically aiming to provide students with a basic yet relevant knowledge of particular careers. In the interest of the nation’s economic development, particularly with respect to its capacity to improve the knowledge and skills of students, to make them more employable, and to match these with the future needs of the country, the VTE sector plays a significant role.
APPENDIX B

Murdoch University Ethics Committee Approval

19 July, 2005

Dear Simone

Student: Ashri Ahmad
Title of investigation: The perceptions of stakeholders of the quality assurance of the assessment process in the vocational and technical education in Brunei.

Permit Number: 2005/165

Please be advised that your ethics committee application for Ashri Ahmad has now been accepted and all conditions have been satisfied.

Yours sincerely

[Signature]

Dr Lindy Norris
Chair
Expedited Review Committee

Ce Ashri Ahmad
Lynne Miles
APPENDIX C

Approval letter for conducting the study in the Department of Technical Education and its five VTEIs

Yang Mulia
Awang Haji Ashri bin Haji Ahmad
Jabatan Pendidikan Teknik
Kementerian Pendidikan
Negara Brunei Darussalam.

Cikgu Haji,

KEHENDARAN UNTUK MENGENDALIKAN “FIELD STUDY”

Dengan hormatnya merujuk surat Cikgu Haji bertarikh 15 Syaaban 1426H bersemaa 19 September 2005 mengenai dengan perkara diatas.

Sukacita dimeklumkan bahwe pihak Jabatan Pendidikan Teknik tidak ada halangan bagi Cikgu Haji untuk mengendalikan "Field Study" tersebut.

Bersama ini disertakan salinan memorandum dan surat untuk memaklumkan kepada pihak-pihak yang berkrena untuk pengetahuan Cikgu Haji.

Sekian untuk makluman Cikgu Haji mengeraisnya.

Wassalam,

"MUAFAKAT MEMBAWA BERKAT"

[ Dyf. Siti Aisah Binti Hj. Mohd Ali ]
Penolong Pengarah
bp. Pengarah Pendidikan Teknik
Kementerian Pendidikan
APPENDIX D

Invitation letter to participate in the semi-structured interview

Date: 17 June 2005

Dear Colleagues,

The Perceptions of Stakeholders of the Quality Assurance System of the Assessment Process in Vocational and Technical Education in Brunei Darussalam

I am carrying out research on the perceptions of stakeholders of the quality assurance of vocational and technical education in Brunei Darussalam. As part of this project, I am trying to establish stakeholders’ understanding of the term ‘quality’ and ‘quality assurance’ in VTE, their experience of the current practices and their views about major issues confronting the DTE and its VTE institutions in terms of ensuring quality of the assessment process in VTE. It is hoped that the findings from the study will be useful in understanding and influencing the future development of VTE in Brunei Darussalam.

I am inviting you to participate in this project as your experience and long standing involvement in VTE is highly valued. I wish to obtain your opinion on issues pertaining to VTE quality assurance processes and initiatives in your own areas of responsibility. The interview will take no more than 1 hour and will be tape recorded with your consent. The data will be treated as confidential and only be used for the purpose of this research. Your name and your institution will not be identified in any report. If you choose to be involved but wish to withdraw at a later stage of the project, you may do so at any time. You will also be shown the interview transcript so that you can verify that the translation and contents written in the transcript reflected the ideas and opinions expressed during the interview. You will also have access to the final report.

The research project has the full support and approval of the Director of Technical Education, Department of Technical Education, Brunei Darussalam. If you agree to participate, please complete the Consent Form attached and return it to me in the pre-paid self addressed envelope enclosed in this letter.

Should you have any queries or questions please contact me at ashri_ha@hotmail.com or by phone at 881306 or Professor Simone Volet at Murdoch University erap@murdoch.edu.au. Alternatively you can contact Murdoch University’s Human Research Ethics Committee at ethics@central.murdoch.edu.au or phone on ++61893606677.

Thanking you in advance for your anticipated participation in this study.

Yours faithfully

(Haji Ashri bin Haji Ahmad)
APPENDIX E

Consent Form

I confirm that I will be able to participate in the project. I understand that all information provided will be treated as confidential and that my anonymity and that of my institution will be protected.

I agree for this interview to be tape-recorded. I agree that the research data for this study may be published provided my name or anything that might identify me is not used.

Indicated below are the days and times I am available for discussion.

Date: ___________________________ (between 17 September – 14 October 2005)
Time: ___________________________ a.m./p.m.

I understand that my involvement in this project will be for about 1 hour and I am free to withdraw at any time.

OR

I regret I am not able to participate in this research project.

Your Signature: ____________________________
Your Organisation/Institution: ____________________________
Contact No.: ____________________________
Date: ____________________________

Researchers’ Signatures: ____________________________  ____________________________
Researchers’ Names: Professor Simone Volet  Haji Ashri bin Haji Ahmad
Date: 1st July 2005
APPENDIX F

INTRODUCTION TO INTERVIEWEE

THE PERCEPTIONS OF STAKEHOLDERS OF THE QUALITY ASSURANCE SYSTEM OF THE ASSESSMENT PROCESS IN VOCATIONAL AND TECHNICAL EDUCATION IN BRUNEI DARUSSALAM

TEACHERS/ADMINISTRATORS

Introduction

Good morning/afternoon

Thank you for volunteering to be interviewed and to be involved in this project.

I am carrying out research on the perceptions of stakeholders of the quality assurance system of the assessment process in vocational and technical education (VTE) in Brunei Darussalam.

I am interested in assessing stakeholders’ descriptions and assessment of the current practices of the DTE and its’ VTE institutions in ensuring quality of the assessment process, the stakeholders’ understanding of the term quality and quality assurance in VTE, as well as determining the current and future issues confronting the DTE and its’ VTE institutions in ensuring quality of VTE provision.

I am hoping that the findings from the study will be useful in understanding and influencing the future development of quality assurance system for assessment processes in VTE in Brunei Darussalam.

The interview data will be treated as confidential. They will only be used for the purposes of this research. Your name and your institution will not be identified in any report. If you choose to be involved but wish to withdraw at a later stage of the project, you may do so at any time. Hopefully, this discussion will not take more than one hour. You should not try to please me, and there is no right or wrong answers. I would like to ask for your permission to tape record this interview. You will also be shown the interview transcript so that you can verify that the translation and contents written in the transcript reflected the ideas and opinions expressed during the interview. You will also have access to the final report.
APPENDIX G
INTERVIEW GUIDE (FEEDBACK SHEET)

THE PERCEPTIONS OF STAKEHOLDERS OF THE QUALITY ASSURANCE OF
THE ASSESSMENT PROCESS IN VOCATIONAL AND TECHNICAL
EDUCATION IN BRUNEI DARUSSALAM

TEACHERS/INSTRUCTORS

Interviewee Code: _________________
Name of institution: MTSSR/MKJB/SVNR/SVSB/PLM

A. Demographic Data
First, I will start by asking you some general information.

1. How long have you been teaching? 1-3 □ 4-6 □ 7-10 □ > 10 □
2. How do you feel about teaching? Do you enjoy it? Yes / No

________________________________________________________________________
________________________________________________________________________
3. Was it always your ambition to be a teacher? Yes / No
4. Where do you see yourself being a teacher in 5 years time? 10 years time?

________________________________________________________________________
________________________________________________________________________
4b. Why do you think so? ________________________________________________

________________________________________________________________________
5. Which Department are you in now? _______________________________________
6. What subjects are you teaching? _________________________________________
7. Which group of students/level are you teaching? NVC / NTC3 / NTC2 / PND / ND
8. Are you a member of the National Programme Advisory Committee (NPAC) □
   Programme Development Executive Committee (PDEC) □
   College Assessment Committee (CAC) □
   Others [ ______________________________ ]
   And in what capacity? Chairperson / Vice Chairperson / Secretary / Member
B. Quality and Quality Assurance in VTE

As you may already know, quality is the buzz word in education nowadays. People are talking about quality education, from the quality of curriculum, quality of teaching and learning as well as quality of assessment. Quality assurance, quality control, quality management and ISO are also widely referred to nowadays.

1. Are you familiar with the term ‘quality’? Yes / No

2a. What is your understanding of the term ‘quality’?
______________________________________________________________________
______________________________________________________________________
______________________________________________________________________

2b. These are some of the definitions of quality in the literature (Card A). Please rank them in order of the definition which best describes quality in VTE as 1 with 5 as the least describe definition of quality? Exceptional Consistent

- Fit for purpose
- Value for money
- Transformative

3. Why do you think quality is important to VTE?
______________________________________________________________________
______________________________________________________________________
______________________________________________________________________

4. Are you familiar with the term quality assurance? Yes / No

5. What do you understand by the term quality assurance?
______________________________________________________________________
______________________________________________________________________
______________________________________________________________________

6a. Why is it important to have a quality assurance initiative in place?
______________________________________________________________________
______________________________________________________________________
______________________________________________________________________

6b. These are some of the purposes of imposing a quality assurance system in education in the literature (Card B). In setting up a quality assurance system, which of the five statements best describes the purpose of quality assurance in VTE? Please rank these statements with 1 being the best purpose in setting up a quality assurance system and 5 as the least best?

- Improvement
- Accountability
- Control
- Public Information and transparency
- Allocation of resources and planning
C. Description of Current Practice

For this study, I will be looking at the assessment process and quality assurance in the BDTVEC programmes. There was a draft proposal circulated during the last PDEEC meeting with regard to assessment process and quality assurance of the BDTVEC programmes, outlining the assessment process and the quality assurance aspects to be implemented along the process.

1. When preparing a new assessment/task do you do this on your own or with colleagues?
   - On your own
   - With colleagues
   - Involve staff from the other institutions

2a. Is the process/practice consistent throughout your department? Yes / No

2b. Is the process/practice consistent throughout your school or college? Yes / No

2c. Is the process/practice consistent throughout VTEIs? Yes / No

3a1. Is there anyone in-charge of monitoring the quality assurance aspects of assessment in your Department? Yes / No

3a2. Who is in charge of this? ____________________

3b1. Is there anyone in-charge of monitoring the quality assurance aspects of assessment in the Institution? Yes / No

3b2. Who is in-charge of this? ____________________

4. How do programme coordinators monitor the quality of assessment in your department?

______________________________________________________________________
______________________________________________________________________
______________________________________________________________________

5. How does the Examination officer monitor the quality of assessment in your institution?

______________________________________________________________________
______________________________________________________________________
______________________________________________________________________

6a. What aspects of the assessment process are monitored in the Department?

______________________________________________________________________
______________________________________________________________________
______________________________________________________________________

6b. What aspects of the assessment process are monitored in the college/school?

______________________________________________________________________
______________________________________________________________________
______________________________________________________________________

7a1. Are you happy with the ways it is done now in the Department? Yes / No

7a2. Why do you say so? ____________________________________________

______________________________________________________________________

______________________________________________________________________
7b1. Are you happy with the ways it is done now in the college/school?  
Yes / No

7b2. Why do you say so?  __________________________________________________________
____________________________________________________
____________________________________________________________________
____________________________________________________________________

8a. What quality assurance strategies are in place which were initiated by the institution?

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

8b. On the whole, what quality assurance strategies are in place, which were initiated by the DTE?  
_____________________________________________________________
____________________________________________________________________
____________________________________________________________________

9a. Are there reasons for using the current approach?  
Yes / No

9b. What are the strengths in the current quality assurance initiatives of the assessment process?

____________________________________________________________________
____________________________________________________________________

10a. In your view, are there any weaknesses in the existing assessment process?  
Yes / No

10b. What problems have you encountered?

____________________________________________________________________
____________________________________________________________________

11a. Do your students ever give feedback on the assessment?  
Yes / No

Yours or others?  
Yours  [ ]  Others  [ ]

11b. What kind of feedback do you get?

____________________________________________________________________
____________________________________________________________________

12a. Are there any areas in the implementation of the quality assurance process in assessment, you feel need further improvement?  
Yes / No

12b. What are they?

____________________________________________________________________
____________________________________________________________________
D.  The proposed ‘Assessment process and quality assurance’ guidelines

Now, we will talk about the proposed ‘assessment process and quality assurance’ guidelines.

1. What differences are there between the existing processes carried out in your department and the proposed one?
   ______________________________________________________
   ______________________________________________________
   ______________________________________________________

2a. Do you think there are strengths in the proposed process? Yes / No
2b. What are they? __________________________________________
    ______________________________________________________
    ______________________________________________________

3a. Do you think there are weaknesses in the proposed process? Yes / No
3b. What are they? __________________________________________
    ______________________________________________________
    ______________________________________________________

4. How well do you think the proposed assessment process will ensure quality?
   Very well       Well               Unsure             Not at all
5a. What is your view of the proposed assessment process and its quality assurance initiatives?
   ______________________________________________________
   ______________________________________________________
   ______________________________________________________

5b. Why do you say so?
   ______________________________________________________
   ______________________________________________________
   ______________________________________________________

6a. Who do you think should monitor or ensure that assessment quality is consistent between institutions. Which option will you choose:
   i. A Unit in DTE                                          iii. Institutions working together
   ii. A coordinator within the DTE                          iv. Others: ____________________
6b. Why are you in favour of (i) or (ii) or (iii)?
   ______________________________________________________
   ______________________________________________________
   ______________________________________________________
E. **External Moderators**

The Department of Technical Education employs the service of external moderators to moderate programmes offered by your Department.

1. What have been the outcomes of the external moderator visits with regards to the quality of assessment in your department?

_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

There were comments made by external moderators that the standard of assessment differs from department to department and from institution to institution. The Director of the DTE also mentioned this.

2. What is your view on this?

_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

3. Can this problem be solved or minimized by the proposed assessment process? **Yes/No**

4a. Given the option, do you think we should continue to use overseas moderators? **Yes/No**

4b. What are the strengths in using moderators from overseas?

_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

4c. What do you think are the weaknesses or drawbacks in using the overseas external moderators? _______________________________________________________

_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

5a. Can we use external moderators from our local institutions? **Yes / No**

5b. Why? _____________________________________________________________

_____________________________________________________________________
_____________________________________________________________________

6a. Do you think we have enough local expertise? **Yes / No**

6b. Where can we get this local expertise? UBD ITB VTEIs Industry/Govt. Dept Others: _______________

7. Looking at the size of the country, where everybody knows each other, could local moderators make independent judgements? **Yes / No**
F. Issues and Challenges
I will be asking you questions related to the issues and challenges faced by both the DTE and its VTEIs in ensuring the quality of VTE provision (see Table 1 on the next page).

1. What are the issues or challenges, do you think, facing your institution in terms of ensuring quality of the assessment process?

_____________________________________________________________________
_____________________________________________________________________

2. Which of these do you think are the current and future issues and challenges of VTE in Brunei (Card C)?

3. Has your section/unit started any quality assurance planning to face these issues/challenges?

4. What measures/approaches does your institution/DTE take in coping with these issues/challenges?

5. Do you think the proposed assessment process in some way helps in preparing the DTE and its institutions in meeting the issues?

G. Staff Development
The last part of this interview will cover staff development aspects.

1a. Do you think all instructors are competent in assessing students work? Yes / No

1b. Why do you think so? ___________________________________________________
_____________________________________________________________________

2. What competency preparations are needed by the teaching staff in ensuring the quality of assessment?
_____________________________________________________________________

3a. What processes need to be improved or instituted in the VTEIs for effective quality assurance measures of the assessment process?
_____________________________________________________________________

3b. The DTE?
_____________________________________________________________________

H. Interviewee Comments
That is all the questions I have for you this morning/afternoon. Is there anything you want to say? ___________________________________________________
_____________________________________________________________________
_____________________________________________________________________
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>- Efficacy/Cost effectiveness</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td></td>
<td>Yes / No</td>
</tr>
<tr>
<td>- Globalisation</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td></td>
<td>Yes / No</td>
</tr>
<tr>
<td>- Private training provider</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td></td>
<td>Yes / No</td>
</tr>
<tr>
<td>- Funding</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td></td>
<td>Yes / No</td>
</tr>
<tr>
<td>- Lack of QA strategies</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td></td>
<td>Yes / No</td>
</tr>
<tr>
<td>- Demands for places</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td></td>
<td>Yes / No</td>
</tr>
<tr>
<td>- Technology development</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td></td>
<td>Yes / No</td>
</tr>
<tr>
<td>- Employers need</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td></td>
<td>Yes / No</td>
</tr>
<tr>
<td>- Nature of work</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td></td>
<td>Yes / No</td>
</tr>
<tr>
<td>- Life long learning</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td></td>
<td>Yes / No</td>
</tr>
<tr>
<td>- Flexible delivery</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td></td>
<td>Yes / No</td>
</tr>
<tr>
<td>- Training in-service student</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td></td>
<td>Yes / No</td>
</tr>
<tr>
<td>- Distance/</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td></td>
<td>Yes / No</td>
</tr>
<tr>
<td>distributed learning</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td></td>
<td>Yes / No</td>
</tr>
<tr>
<td>- Leadership</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td></td>
<td>Yes / No</td>
</tr>
<tr>
<td>- Empowering Staff</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td></td>
<td>Yes / No</td>
</tr>
<tr>
<td>- Physical resources in VTEIs</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td></td>
<td>Yes / No</td>
</tr>
<tr>
<td>- Teaching and learning resources and equipment</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td></td>
<td>Yes / No</td>
</tr>
</tbody>
</table>
APPENDIX H

INTERVIEW GUIDE (FEEDBACK SHEET)

THE PERCEPTIONS OF STAKEHOLDERS OF THE QUALITY ASSURANCE SYSTEM OF THE ASSESSMENT PROCESS IN VOCATIONAL AND TECHNICAL EDUCATION IN BRUNEI DARUSSALAM

ADMINISTRATORS/POLICY MAKERS

________________________________________________________________________

Interviewee Code: ______________________

A. Demographic Data
First, I will start by asking you some general information.

1. How long have you been working in this section/unit/institution?
   1-3  
   4-6  
   7-10 
   > 10 

2. Were you teaching before working here? Yes / No

3. In which institution were you teaching before? MTSSR / MKJB / SVNR / SVSB /PLM

4. How long were you teaching? 1-3  4-6  7-10  > 10

5. What is your current responsibility?

______________________________________________________________________

6. Are you a member of the National Programme Advisory Committee (NPAC)  
   Programme Development Executive Committee (PDEC) 
   College Assessment Committee (CAC) 
   Others [ ______________________________ ]

   And in what capacity? Chairperson / Vice Chairperson / Secretary / Member

B. Description of Current Practice
For this study, I will be looking at the assessment process and quality assurance in the BDTVEC programmes. There was a draft proposal circulated during the last PDEEC meeting with regard to assessment and quality assurance of the BDTVEC programmes outlining the assessment process and the quality assurance aspects to be implemented along the process.

363
1. Currently (Before the draft proposal), how do you think the instructors in our VTE institutions come up with an assessment paper/task?

______________________________________________________________________
______________________________________________________________________

2a. What quality assurance strategies are in place in the VTE institutions to ensure the quality of assessment?

______________________________________________________________________
______________________________________________________________________

2b. Do you think the process/practice is consistent throughout schools/colleges? Yes / No
2c. Why do you say so? ____________________________________________

______________________________________________________________________
______________________________________________________________________

2d. What quality assurance strategies are in place in the DTE (BDTVEC) to ensure the quality of assessment?

______________________________________________________________________
______________________________________________________________________

3a. Is there anyone in-charge of the quality assurance aspects of the assessment process at the institution? Yes / No
3b. Who is in-charge of this? ____________________________________________

______________________________________________________________________

E. The proposed ‘Assessment process and quality assurance’ guidelines
1. Why has the Department (DTE) proposed the new quality assurance process for the assessment? ____________________________________________

______________________________________________________________________

2. What is wrong with the existing assessment process and its quality assurance measures?

______________________________________________________________________

3. What is the strength of the proposed assessment process?

______________________________________________________________________
4a. Do you perceive any difficulty in implementing the new process? Yes/No
4b. Such as? ________________________________________________________________
__________________________________________________________________________

5a. Should we encourage students to give feedback on the assessments given to them? Yes/No
5b. What kind of feedback should we encourage?
__________________________________________________________________________
__________________________________________________________________________

In the proposal, it was noted that the responsibility to ensure the implementation and monitoring of the quality assurance for the assessment process is with the Principal of the institutions. They may delegate this responsibility to their Deputy Principal (Education and Training) and/or their Examination Officer.

6. Do you think this is sufficient? Yes/No
7. How will you know whether the institution is following the recommendations?
__________________________________________________________________________
__________________________________________________________________________

8. Who do you think should monitor or ensure that assessment quality is consistent between institutions? ____________________________________________________________
__________________________________________________________________________

9a. Should a unit be set up in the DTE to monitor the quality of assessment in institutions and between institutions? Yes/No
9b. As proposed, will an external verifier be appointed within the DTE to work with the institutions? Yes/No
9c. Is there any possibility that institutions will work together on quality assurance of the assessment process? Yes/No

10a. Will all VTE institutions, public and private, be monitored? Yes/No
10b. Why will monitoring only be carried out in newly approved centres?
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

10c. Why not include established centres?
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
D.  External Moderators
The Department of Technical Education employs the services of external moderators to moderate the programmes offered by your Department.
There were comments made by the external moderators that the standard of assessment differs from department to department and from institution to institution. The Director of the DTE also mentioned this.

1. What is your view on this?
______________________________________________________________________
______________________________________________________________________

2. Can this problem be solved or minimized by the proposed assessment process? Yes/ No
3a. Given the option, do you think we should continue to use overseas moderators? Yes/ No
3b. What are the strengths in using overseas external moderators?
______________________________________________________________________
______________________________________________________________________
______________________________________________________________________
3c. What do you think are the weaknesses or drawbacks in using the overseas external moderators? _______________________________________________________
______________________________________________________________________
______________________________________________________________________
4a. Can we use external moderators from our local institutions? Yes / No
4b  Why? Why not? ________________________________________________________
______________________________________________________________________
______________________________________________________________________
5a. Do you think we have enough local expertise? Yes / No
5b. Where can we get this local expertise? UBD □  ITB □  VTE Institutions □
    Industry/Govt. Dept □  Others: _______________
6. Looking at the size of the country, where everybody knows each other, could local
   moderators make independent judgements? Yes / No

F.  Quality and Quality Assurance in VTE
As you may already know, quality is the buzz word in education nowadays. People are talking about quality education, from the quality of curriculum, quality of teaching and learning as well as quality of assessment. Quality assurance, quality control, quality management and ISO are also widely referred to nowadays.
1a. When talking about quality, what is your understanding of the term quality in VTE?
______________________________________________________________________
______________________________________________________________________
______________________________________________________________________

1b. These are some of the definitions of quality in the literature (Card A). Please rank them in order of the definition which best describes quality in VTE as 1 with 5 as the least describes definition of quality?

- Exceptional
- Consistent
- Fit for purpose
- Transformative
- Value for money

2. Why do you think quality is important to VTE?
______________________________________________________________________
______________________________________________________________________
______________________________________________________________________

3. How about quality assurance, are you familiar with this term?  
Yes / No

4. What do you understand by the term quality assurance?
______________________________________________________________________
______________________________________________________________________
______________________________________________________________________

5a. Why is it important to have a quality assurance initiative in place?
______________________________________________________________________
______________________________________________________________________
______________________________________________________________________

5b. These are some of the purposes of imposing a quality assurance system in education in the literature (Card B). In setting up a quality assurance system, which of the five statements best describes the purpose of quality assurance in VTE? Please rank these statements with 1 being the best purpose in setting up a quality assurance system and 5 as the least best?

- Improvement
- Accountability
- Control
- Public information and transparency
- Allocation of resources and planning
F. Issues and Challenges
I will be asking you questions related to the issues and challenges faced by both the DTE and its VTEIs in ensuring the quality of VTE provision

1. What are the issues or challenges, do you think, facing your institution in terms of ensuring quality of the assessment process?

_____________________________________________________________________

2. Which of these do you think are the current and future issues and challenges of VTE in Brunei (Card C)?

3. Has your section/unit started any quality assurance planning to face these issues/challenges?

4. What measures/approaches does your institution/DTE take in coping with these issues/challenges?

5. Do you think the proposed assessment process in some way helps in preparing the DTE and its institutions in meeting the issues?

(Feedback of this section to be recorded in Table 1 on the next page)

G. Staff Development
The last part of this interview will cover staff development aspects.

1a. Do you think all instructors are competent in assessing students work? Yes / No

1b. Why do you think so? ___________________________________________________

_____________________________________________________________________

2. What competency preparations are needed by the teaching staff in ensuring the quality of assessment?

_____________________________________________________________________

3a. What processes need to be improved or instituted in the VTEIs for effective quality assurance measures of the assessment process?

_____________________________________________________________________

3b. The DTE?

_____________________________________________________________________

H. Interviewee Comments
That is all the questions I have for you this morning/afternoon. Is there anything you want to say? _____________________________________________________________

_____________________________________________________________________

368
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>- Efficacy/Cost effectiveness</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td>Yes No</td>
</tr>
<tr>
<td>- Globalisation</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td>Yes No</td>
</tr>
<tr>
<td>- Private training provider</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td>Yes No</td>
</tr>
<tr>
<td>- Funding</td>
<td>Yes No</td>
<td>Yes No</td>
<td>Yes No</td>
<td>Yes No</td>
</tr>
<tr>
<td>- Lack of QA strategies</td>
<td>Yes No</td>
<td>Yes No</td>
<td>Yes No</td>
<td>Yes No</td>
</tr>
<tr>
<td>- Demands for places</td>
<td>Yes No</td>
<td>Yes No</td>
<td>Yes No</td>
<td>Yes No</td>
</tr>
<tr>
<td>- Technology development</td>
<td>Yes No</td>
<td>Yes No</td>
<td>Yes No</td>
<td>Yes No</td>
</tr>
<tr>
<td>- Employers need</td>
<td>Yes No</td>
<td>Yes No</td>
<td>Yes No</td>
<td>Yes No</td>
</tr>
<tr>
<td>- Nature of work</td>
<td>Yes No</td>
<td>Yes No</td>
<td>Yes No</td>
<td>Yes No</td>
</tr>
<tr>
<td>- Life long learning</td>
<td>Yes No</td>
<td>Yes No</td>
<td>Yes No</td>
<td>Yes No</td>
</tr>
<tr>
<td>- Flexible delivery</td>
<td>Yes No</td>
<td>Yes No</td>
<td>Yes No</td>
<td>Yes No</td>
</tr>
<tr>
<td>- Training in-service student</td>
<td>Yes No</td>
<td>Yes No</td>
<td>Yes No</td>
<td>Yes No</td>
</tr>
<tr>
<td>- Distance/ distributed learning</td>
<td>Yes No</td>
<td>Yes No</td>
<td>Yes No</td>
<td>Yes No</td>
</tr>
<tr>
<td>- Leadership</td>
<td>Yes No</td>
<td>Yes No</td>
<td>Yes No</td>
<td>Yes No</td>
</tr>
<tr>
<td>- Empowering Staff</td>
<td>Yes No</td>
<td>Yes No</td>
<td>Yes No</td>
<td>Yes No</td>
</tr>
<tr>
<td>- Physical resources in VTEIs</td>
<td>Yes No</td>
<td>Yes No</td>
<td>Yes No</td>
<td>Yes No</td>
</tr>
<tr>
<td>- Teaching and learning resources and equipment</td>
<td>Yes No</td>
<td>Yes No</td>
<td>Yes No</td>
<td>Yes No</td>
</tr>
</tbody>
</table>
APPENDIX I : SURVEY QUESTIONNAIRE

Survey Questionnaire
The Perceptions of Stakeholders of the Quality Assurance System of the Assessment Process in Vocational and Technical Education in Brunei Darussalam

Dear Colleagues,

I am currently conducting a study on the perception of the quality and quality assurance process in the Department of Technical Education (DTE). As part of this project, I am trying to establish stakeholders’ understandings of the term ‘quality’ and ‘quality assurance’ in VTE, their experience of current practices and their views about the major issues confronting the DTE and its’ VTE institutions in terms of ensuring quality of the assessment process in VTE. It is hoped that the findings from this study will be useful in understanding and influencing the future development of a quality assurance system in VTE in Brunei Darussalam.

Instructions
I will be grateful if you can assist me in this study by responding to the questionnaire. It is divided into five sections. Please answer all sections. The questionnaire is not intended to take more than one hour of your valuable time. The confidentiality of information and your anonymity will be maintained. Your responses will be used for the purpose of this research and not for any other purpose. Please do not write your name on the questionnaire.

You can contact me at Ashri_ha@hotmail.com should you need further information about the questionnaire.

Please return the completed questionnaire to your Deputy Principal (Education & Training) by Monday, January 30, 2006.

Thank you.

Haji Ashri bin Haji Ahmad

17th January 2006
SECTION A
Managing Quality Assurance (QA) measures for the Assessment Process in VTE

Instruction:
Please indicate the extent to which you Agree, Disagree or are Unsure with each of the statements about Your Institution.
Please tick (√) your choice in the box provided.

<table>
<thead>
<tr>
<th>A1. Organisation and management at your institution</th>
<th>Agree</th>
<th>Unsure</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My institution has a strategic plan with a clear mission, goals and objectives.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2. My institution has a central quality assurance policy making body for student assessment.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3. My institution has a formal policy to improve quality and maintain standards of assessment.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A2. Quality assurance implementation processes (assessment process) at your institution</th>
<th>Agree</th>
<th>Unsure</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. The management implications of the new quality assurance initiatives are considered before their adoption in my institution.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>5. Many quality assurance initiatives are implemented in a haphazard manner with unrealistic time frames.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>6. The quality assurance initiatives for the assessment process as instructed by the DTE are given full support by administrators and teachers.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>7. The quality assurance and control arrangements for the assessment system are clear, rigorous and understood by staff.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>8. The quality assurance and control arrangements for the assessment system are clear, rigorous and understood by students.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
### A3. Quality assurance monitoring and the reviewing process at your institution

<table>
<thead>
<tr>
<th></th>
<th>Agree</th>
<th>Unsure</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.</td>
<td>There is no quality assurance monitoring body for the assessment process in my institution.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>10.</td>
<td>Teachers’ feedback is used to evaluate the quality and effectiveness of the assessment provision.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>11.</td>
<td>Students and employers’ feedback are used where possible to evaluate the quality and effectiveness of the assessment provision.</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

### A4. Physical and human resources at your institution

<table>
<thead>
<tr>
<th></th>
<th>Agree</th>
<th>Unsure</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.</td>
<td>There is a system in place to ensure that physical resources for ensuring quality of the assessment process are maintained and updated.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>13.</td>
<td>The physical resources for ensuring quality of assessment have been identified.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>14.</td>
<td>The physical resources for ensuring quality of assessment are not adequate.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>15.</td>
<td>There is no system in place to ensure that staff resources for ensuring quality of the assessment process are upgraded regularly.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>16.</td>
<td>Not all teaching staff are technically and professionally competent.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>17.</td>
<td>Staff professional development has been implemented successfully.</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

### A5. Stakeholders’ involvement in quality assurance measures at your institution

<table>
<thead>
<tr>
<th></th>
<th>Agree</th>
<th>Unsure</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>18.</td>
<td>The key stakeholders (i.e. employers and teaching staff) are well presented in the formulation of VTE quality assurance policies.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>19.</td>
<td>In the formulation of the VTE quality assurance policies, specialists in the relevant field are invited to make contributions.</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
Please indicate the extent to which you **Agree**, **Disagree** or are **Unsure** with each of the statements about the Department of Technical Education (DTE).

**Please tick (√) your choice in the box provided.**

**A6. Assessment process quality assurance initiatives in the Department of Technical Education**

<table>
<thead>
<tr>
<th></th>
<th>Agree</th>
<th>Unsure</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>20. There is a formal section in the DTE specifically to formulate quality assurance policies of the assessment process.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>21. Due attention is given to constraints in the planning process of quality assurance initiatives.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>22. The decision making style for assuring quality at the DTE level can be described as participative.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

**A7. Professional Development for Teachers**

Professional development helps teachers acquire, develop and maintain the competencies to carry out quality assessment within the VTE sector.

Below is a list of professional development activities that are assumed to assist teachers. Some of these activities may have already been implemented in your institution while others may not.

**Please indicate for each activity whether you think such an activity will help you develop your skill. Please tick (√) your choice in the box provided.**

<table>
<thead>
<tr>
<th></th>
<th>Agree</th>
<th>Unsure</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>23. Peer review</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>24. Job rotation</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>25. Mentoring and coaching</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>26. Internal validation activities</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>27. Structured professional development</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>28. Workshops/seminars/talks</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>29. Workplace visits</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>30. Return to industry programmes</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>31. Programmes of further study</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Please suggest other professional development activities required by teachers.
### SECTION B

**B1. Defining Quality in VTE**

**Instructions:**
The statements below represent different definitions of ‘quality’. Please indicate the order in which the statements represent your own view of quality, for example, 1 for the statement that least describes your own view and 5 that best describes your own view of quality.

**REMEMBER TO USE EACH NUMBER ONLY ONCE.**

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Best describes</strong></td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td><strong>Least describes</strong></td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

- **Exceptional** – Uncompromising standards, absolute benchmark and high achievement.
- **Consistency** – Right every time with no errors.
- **Fit for purpose** – Successfully meets or serves the purpose of the users.
- **Value for money** – A return of investment. Using and managing resources efficiently.
- **Transformative** – Educational experience that enhances the participants’ knowledge, skills and abilities.

i. Any additional comment(s), if any, on how you understand quality in VTE. Please explain.

__________________________________________________________________

__________________________________________________________________
B2. The Significance of Quality Assurance Measures

Instructions:
The terms below indicate the purposes for implementing a quality assurance system. Please indicate your view on what should be your institution’s purpose for implementing a quality assurance system by putting numbers against the terms that represent your choice. Your responses are to be **RANKED** from 1 to 5.

**REMEMBER TO USE EACH NUMBER ONLY ONCE.**

<table>
<thead>
<tr>
<th>Most important</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Least important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improvement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accountability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public information</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resource allocation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

i. Can you think of any other purpose(s) for implementing quality assurance which is not listed above? Please specify.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

ii. Why would you include this?

________________________________________________________________________
________________________________________________________________________
C1. Verification Processes

Guidelines on the ‘Assessment Process and Quality Assurance’ were distributed in October 2005. They outlined the assessment process and the quality assurance aspects to be implemented in all VTE institutions. Your personal view about these guidelines and your institution’s quality assurance initiatives for the assessment process are sought.

1. In your opinion, what are the strengths of the ‘Assessment Process and Quality Assurance’ guidelines?

_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

2. What about the weaknesses of the above guidelines?

_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

3a. Do you think the implementation of BDTVEC programmes in your institution should be externally verified and monitored by an external verifier?  Yes / No

3b. Please explain your answer.

_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

3c. If your answer to 3a is ‘Yes’, what type(s) of monitoring would you perceive as the most effective in ensuring quality of the assessment process? (Please tick (✓) your choice(s) in the box provided. You may tick more than ONE box)

- External moderators
- Coordinator in the DTE
- PDEC
- Assessment Unit in the DTE
- Internal institution monitoring
- Peer review (between institutions)
- Quality Assurance Unit in the DTE
- Others? Please specify: _______________ (as previously established)
C2. Overseas External Moderators

The Department of Technical Education currently employs the service of moderators from overseas to moderate some of the programmes offered by VTE institutions.

1a. In your opinion, do you think the DTE should continue to use moderators from overseas?  
   Yes/ No /Depends

1b. Please explain your answer.

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

For question 2a and 2b, please tick (√) your choice(s) in the box provided.
(You may tick more than ONE box)

2a. In your view, what are the strengths in using moderators from overseas?
   Neutral observer   Experience and knowledge   International expertise
   Others (please specify): _________________________________________________

2b. What do you think are the weaknesses or drawbacks in using the moderators from overseas?
   Timing & the short duration of visit
   High cost
   Unclear and insufficient roles
   Moderators’ lack of professionalism
   Moderators’ lack of local knowledge
   Moderators actually learn from us
   No action taken on external moderators’ report
   Moderators only reported good aspects
   Staff only reported good aspects
   Lack of transparency in moderators’ reports
   Focusing too much on assessment aspects
   No procedure to check on moderators’ effectiveness
   Others (please specify): _________________________________________________

3a. Do you think the DTE could use external moderators from our local institutions and industries?  
   Yes / No / Depends

3b. Please justify your answer.

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

4a. Do you think there are enough local experts who could be used as external moderators?  
   Yes / No
4b. If your answer for question 4a above is ‘Yes’, where could the DTE get these local experts and what issue(s) should be considered?

_____________________________________________________________________

_____________________________________________________________________

5. Looking at the size of the country and the small number of VTE institutions (where everybody is bound to know each other), how could local moderators make impartial judgements?

_____________________________________________________________________

_____________________________________________________________________

SECTION D
Quality and Quality Assurance: Current and Future Challenges

Question D.i:

<table>
<thead>
<tr>
<th>Issues/Challenges</th>
<th>Column A: I believe this is an issue/challenge confronting my institution in its effort to ensure quality of VTE provision</th>
<th>Column B: I believe my institution is trying to initiate action to address this issue/challenge</th>
<th>Column C: I believe the DTE has already taken action to assist my institution to address this issue/challenge</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Lack of expertise in quality assurance matters</td>
<td>☐ ☐</td>
<td>☐ ☐</td>
<td>☐ ☐</td>
</tr>
<tr>
<td>2. Lack of funding</td>
<td>☐ ☐</td>
<td>☐ ☐</td>
<td>☐ ☐</td>
</tr>
<tr>
<td>3. Lack of quality assurance strategies</td>
<td>☐ ☐</td>
<td>☐ ☐</td>
<td>☐ ☐</td>
</tr>
<tr>
<td>4. Meeting increasing demands for places of study</td>
<td>☐ ☐</td>
<td>☐ ☐</td>
<td>☐ ☐</td>
</tr>
<tr>
<td>5. Rapid technology development</td>
<td>☐ ☐</td>
<td>☐ ☐</td>
<td>☐ ☐</td>
</tr>
<tr>
<td>6. The need to meet employers’ needs</td>
<td>☐ ☐</td>
<td>☐ ☐</td>
<td>☐ ☐</td>
</tr>
<tr>
<td>7. Lack of leadership in the quality initiatives</td>
<td>☐ ☐</td>
<td>☐ ☐</td>
<td>☐ ☐</td>
</tr>
<tr>
<td>8. Difficulty in empowering staff</td>
<td>☐ ☐</td>
<td>☐ ☐</td>
<td>☐ ☐</td>
</tr>
<tr>
<td>9. Insufficient physical resources in VTE institutions</td>
<td>☐ ☐</td>
<td>☐ ☐</td>
<td>☐ ☐</td>
</tr>
<tr>
<td>10. Lack of teaching and learning resources</td>
<td>☐ ☐</td>
<td>☐ ☐</td>
<td>☐ ☐</td>
</tr>
</tbody>
</table>
ii. Please specify any other issue(s) confronting your institution which is/are not listed above.

Issue 11. ____________________________________________________________
Issue 12. ____________________________________________________________

iii. Out of the 10 possible issues/challenges listed in question D.i. above, which are the THREE most pressing issues/challenges. You just have to write the corresponding number in the box provided below. Justify your reason for choosing the issue/challenge in your ranking.

a) First    Why? ____________________________________________________________

b) Second   Why? ____________________________________________________________

c) Third    Why? ____________________________________________________________

SECTION E
Demographic Data

Instruction:
Please tick (✓) where appropriate

1. Are you a local or an expatriate staff member?
   - Local staff
   - An expatriate

2. How long have you been teaching?
   - 1-5 years
   - 6-10 years
   - 11-15 years
   - 16-20 years
   - 20 years and above

3. Are you a member of the following committee(s)? [You may tick more than 1 box]
   - Academic Board
   - NPAC
   - PDEC
   - PDEEC
   - College Assessment Committee

Thank you for your time, opinions and comments.
Please return the completed questionnaire to your Deputy Principal
(Education & Training) by Monday, 30th January 2006

379
APPENDIX K

RESULTS OF THE SURVEY QUESTIONNAIRE

SECTION A
Managing Quality Assurance (QA) Initiatives for the Assessment Process in VTE

Administrators, Overall, O (n=21): (Administrators in the DTE, AD (n=13), Administrators in VTE Institutions, AI (n=8)); Teachers (n=101)

A = Agree,  U = Unsure,  D = Disagree

<table>
<thead>
<tr>
<th>A1. Organisation and management at your institution</th>
<th>Administrators</th>
<th>Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of respondents (%)</td>
<td>No. of respondents (%)</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>U</td>
</tr>
<tr>
<td>1. My institution has a strategic plan with a clear mission, goals and objectives.</td>
<td>O</td>
<td>17 (81)</td>
</tr>
<tr>
<td></td>
<td>AD</td>
<td>9  (69)</td>
</tr>
<tr>
<td></td>
<td>AI</td>
<td>8  (100)</td>
</tr>
<tr>
<td>2. My institution has a central quality assurance policy making body for student assessment.</td>
<td>O</td>
<td>8  (38)</td>
</tr>
<tr>
<td></td>
<td>AD</td>
<td>6  (46)</td>
</tr>
<tr>
<td></td>
<td>AI</td>
<td>2  (25)</td>
</tr>
<tr>
<td>3. My institution has a formal policy to improve quality and maintain standards of assessment.</td>
<td>O</td>
<td>14 (67)</td>
</tr>
<tr>
<td></td>
<td>AD</td>
<td>7  (54)</td>
</tr>
<tr>
<td></td>
<td>AI</td>
<td>7  (88)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A2. Quality assurance implementation processes (assessment process) at your institution</th>
<th>Administrators</th>
<th>Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of respondents (%)</td>
<td>No. of respondents (%)</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>U</td>
</tr>
<tr>
<td>4. The management implications of the new quality assurance initiatives are considered before their adoption in my institution.</td>
<td>O</td>
<td>12 (57)</td>
</tr>
<tr>
<td></td>
<td>AD</td>
<td>7  (54)</td>
</tr>
<tr>
<td></td>
<td>AI</td>
<td>5  (63)</td>
</tr>
<tr>
<td>5. Many quality assurance initiatives are implemented in a haphazard manner with unrealistic time frames.</td>
<td>O</td>
<td>4  (19)</td>
</tr>
<tr>
<td></td>
<td>AD</td>
<td>2  (15)</td>
</tr>
<tr>
<td></td>
<td>AI</td>
<td>2  (25)</td>
</tr>
<tr>
<td>6. The quality assurance initiatives for the assessment process as instructed by the DTE are given full support by administrators and teachers.</td>
<td>O</td>
<td>8  (38)</td>
</tr>
<tr>
<td></td>
<td>AD</td>
<td>3  (23)</td>
</tr>
<tr>
<td></td>
<td>AI</td>
<td>5  (63)</td>
</tr>
</tbody>
</table>
7. The quality assurance and control arrangements for the assessment system are clear, rigorous and understood by staff.

8. The quality assurance and control arrangements for the assessment system are clear, rigorous and understood by students.

A4. Quality assurance monitoring and the review process at your institution

<table>
<thead>
<tr>
<th>A4.</th>
<th>No. of respondents (%)</th>
<th>Administrators</th>
<th>Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.</td>
<td>There is no quality assurance monitoring body for the assessment process in the VTE institutions.</td>
<td>AD</td>
<td>AI</td>
</tr>
<tr>
<td></td>
<td>4 (19) 2 (10) 15 (71)</td>
<td>3 (23) 1 (8) 9 (69)</td>
<td>1 (13) 1 (13) 6 (75)</td>
</tr>
<tr>
<td></td>
<td>30 (30) 29 (29) 42 (42)</td>
<td>52 (51) 32 (32) 17 (17)</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Teachers’ feedback is used to evaluate the quality and effectiveness of the students’ assessments.</td>
<td>AD</td>
<td>AI</td>
</tr>
<tr>
<td></td>
<td>17 (81) 3 (14) 1 (5)</td>
<td>10 (77) 2 (15) 1 (8)</td>
<td>7 (88) 1 (13) 0 (0)</td>
</tr>
<tr>
<td></td>
<td>38 (38) 48 (48) 15 (15)</td>
<td>38 (38) 48 (48) 15 (15)</td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Students’ and employers’ feedback are used where possible to evaluate the quality and effectiveness of the students’ assessments.</td>
<td>AD</td>
<td>AI</td>
</tr>
<tr>
<td></td>
<td>12 (57) 7 (33) 2 (10)</td>
<td>7 (54) 4 (31) 2 (15)</td>
<td>6 (75) 2 (25) 0 (0)</td>
</tr>
</tbody>
</table>

A5. Physical and human resources at your institution

<table>
<thead>
<tr>
<th>A5.</th>
<th>No. of respondents (%)</th>
<th>Administrators</th>
<th>Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.</td>
<td>There is a system in place to ensure that physical resources for ensuring quality of the assessment process are maintained and updated.</td>
<td>AD</td>
<td>AI</td>
</tr>
<tr>
<td></td>
<td>9 (43) 6 (29) 6 (29)</td>
<td>3 (23) 4 (31) 6 (46)</td>
<td>5 (63) 2 (25) 1 (13)</td>
</tr>
<tr>
<td></td>
<td>29 (29) 52 (51) 20 (20)</td>
<td>37 (37) 49 (49) 15 (15)</td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>The physical resources for ensuring quality of assessment have been identified.</td>
<td>AD</td>
<td>AI</td>
</tr>
<tr>
<td></td>
<td>12 (57) 4 (19) 5 (24)</td>
<td>5 (38) 4 (31) 4 (31)</td>
<td>7 (88) 0 (0) 1 (13)</td>
</tr>
<tr>
<td></td>
<td>37 (37) 49 (49) 15 (15)</td>
<td>37 (37) 49 (49) 15 (15)</td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>The physical resources for ensuring quality of assessment are not adequate.</td>
<td>AD</td>
<td>AI</td>
</tr>
<tr>
<td></td>
<td>15 (71) 5 (24) 1 (5)</td>
<td>10 (77) 3 (23) 0 (0)</td>
<td>5 (63) 2 (25) 1 (13)</td>
</tr>
<tr>
<td></td>
<td>59 (58) 28 (28) 14 (14)</td>
<td>59 (58) 28 (28) 14 (14)</td>
<td></td>
</tr>
</tbody>
</table>
15. There is no system in place to ensure that staff resources for ensuring quality of the assessment process are upgraded regularly.

<table>
<thead>
<tr>
<th></th>
<th>Administrators</th>
<th>Teachers</th>
<th></th>
<th>Administrators</th>
<th>Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>O 7 (33)</td>
<td>O 5 (24)</td>
<td>O 9 (43)</td>
<td>51 (50)</td>
<td>30 (30)</td>
</tr>
<tr>
<td></td>
<td>AD 4 (31)</td>
<td>AD 3 (23)</td>
<td>AD 5 (38)</td>
<td>3 (38)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AI 3 (38)</td>
<td>AI 2 (25)</td>
<td>AI 3 (38)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

16. Not all teaching staff are technically and professionally competent.

<table>
<thead>
<tr>
<th></th>
<th>Administrators</th>
<th>Teachers</th>
<th></th>
<th>Administrators</th>
<th>Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>O 16 (76)</td>
<td>O 1 (5)</td>
<td>O 4 (19)</td>
<td>56 (55)</td>
<td>23 (23)</td>
</tr>
<tr>
<td></td>
<td>AD 12 (92)</td>
<td>AD 0 (0)</td>
<td>AD 1 (8)</td>
<td>1 (8)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AI 4 (50)</td>
<td>AI 1 (13)</td>
<td>AI 3 (38)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

17. Staff professional development has been implemented successfully.

<table>
<thead>
<tr>
<th></th>
<th>Administrators</th>
<th>Teachers</th>
<th></th>
<th>Administrators</th>
<th>Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>O 3 (14)</td>
<td>O 8 (38)</td>
<td>O 10 (48)</td>
<td>21 (21)</td>
<td>40 (40)</td>
</tr>
<tr>
<td></td>
<td>AD 2 (15)</td>
<td>AD 4 (31)</td>
<td>AD 7 (54)</td>
<td>7 (54)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AI 1 (13)</td>
<td>AI 4 (50)</td>
<td>AI 3 (38)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**A6. Stakeholders involvement in quality assurance initiatives at your institution**

<table>
<thead>
<tr>
<th></th>
<th>No. of respondents (%)</th>
<th></th>
<th>No. of respondents (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Administrators</td>
<td>Teachers</td>
<td>Administrators</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>U</td>
<td>D</td>
</tr>
<tr>
<td>18. The key stakeholders (i.e. employers and teaching staff) are well presented in the formulation of VTE quality assurance policies.</td>
<td>O 8 (38)</td>
<td>O 10 (48)</td>
<td>O 3 (14)</td>
</tr>
<tr>
<td></td>
<td>AD 2 (15)</td>
<td>AD 9 (69)</td>
<td>AD 2 (15)</td>
</tr>
<tr>
<td></td>
<td>AI 6 (75)</td>
<td>AI 1 (13)</td>
<td>AI 1 (13)</td>
</tr>
<tr>
<td>19. In the formulation of VTE quality assurance policies, specialists in the relevant field are invited to make contributions.</td>
<td>O 9 (43)</td>
<td>O 10 (48)</td>
<td>O 2 (10)</td>
</tr>
<tr>
<td></td>
<td>AD 4 (31)</td>
<td>AD 8 (62)</td>
<td>AD 1 (8)</td>
</tr>
<tr>
<td></td>
<td>AI 5 (63)</td>
<td>AI 2 (25)</td>
<td>AI 1 (13)</td>
</tr>
</tbody>
</table>

**A7. Assessment process quality assurance measures in the Department of Technical Education**

<table>
<thead>
<tr>
<th></th>
<th>No. of respondents (%)</th>
<th></th>
<th>No. of respondents (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Administrators</td>
<td>Teachers</td>
<td>Administrators</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>U</td>
<td>D</td>
</tr>
<tr>
<td>20. There is a formal section in the DTE specifically to formulate quality assurance policies of the assessment process.</td>
<td>O 14 (67)</td>
<td>O 6 (29)</td>
<td>O 1 (5)</td>
</tr>
<tr>
<td></td>
<td>AD 7 (54)</td>
<td>AD 5 (38)</td>
<td>AD 1 (8)</td>
</tr>
<tr>
<td></td>
<td>AI 7 (88)</td>
<td>AI 1 (13)</td>
<td>AI 0 (0)</td>
</tr>
<tr>
<td>21. Due attention is given to constraints in the planning process of quality assurance initiatives.</td>
<td>O 8 (38)</td>
<td>O 12 (57)</td>
<td>O 1 (8)</td>
</tr>
<tr>
<td></td>
<td>AD 8 (62)</td>
<td>AD 4 (31)</td>
<td>AD 1 (8)</td>
</tr>
<tr>
<td></td>
<td>AI 1 (13)</td>
<td>AI 7 (88)</td>
<td>AI 0 (0)</td>
</tr>
<tr>
<td>22. The decision making style for assuring quality at the DTE level can be described as participative.</td>
<td>O 11 (53)</td>
<td>O 9 (43)</td>
<td>O 1 (5)</td>
</tr>
<tr>
<td></td>
<td>AD 8 (62)</td>
<td>AD 4 (31)</td>
<td>AD 1 (8)</td>
</tr>
<tr>
<td></td>
<td>AI 3 (38)</td>
<td>AI 5 (63)</td>
<td>AI 0 (0)</td>
</tr>
</tbody>
</table>
### A8. Professional Development for Teachers

<table>
<thead>
<tr>
<th>No. of respondents (%)</th>
<th>Administrators</th>
<th>Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>U</td>
</tr>
<tr>
<td>Peer review</td>
<td></td>
<td></td>
</tr>
<tr>
<td>O</td>
<td>13</td>
<td>7</td>
</tr>
<tr>
<td>AD</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>AI</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Job rotation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>O</td>
<td>11</td>
<td>6</td>
</tr>
<tr>
<td>AD</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>AI</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Mentoring and coaching</td>
<td></td>
<td></td>
</tr>
<tr>
<td>O</td>
<td>21</td>
<td>0</td>
</tr>
<tr>
<td>AD</td>
<td>13</td>
<td>0</td>
</tr>
<tr>
<td>AI</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>Internal validation activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>O</td>
<td>16</td>
<td>5</td>
</tr>
<tr>
<td>AD</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>AI</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Structured professional development</td>
<td></td>
<td></td>
</tr>
<tr>
<td>O</td>
<td>19</td>
<td>1</td>
</tr>
<tr>
<td>AD</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>AI</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>Workshops/seminars/talks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>O</td>
<td>20</td>
<td>0</td>
</tr>
<tr>
<td>AD</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td>AI</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>Workplace visits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>O</td>
<td>21</td>
<td>0</td>
</tr>
<tr>
<td>AD</td>
<td>13</td>
<td>0</td>
</tr>
<tr>
<td>AI</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>Return to industry programmes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>O</td>
<td>20</td>
<td>1</td>
</tr>
<tr>
<td>AD</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>AI</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>Programmes of further study</td>
<td></td>
<td></td>
</tr>
<tr>
<td>O</td>
<td>21</td>
<td>0</td>
</tr>
<tr>
<td>AD</td>
<td>13</td>
<td>0</td>
</tr>
<tr>
<td>AI</td>
<td>8</td>
<td>0</td>
</tr>
</tbody>
</table>
### SECTION B

#### B1. Defining ‘Quality’ in VTE

<table>
<thead>
<tr>
<th>Rank</th>
<th>Exceptional</th>
<th>Consistency</th>
<th>Fit for purpose</th>
<th>Value for money</th>
<th>Transformative</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTSSR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>7</td>
<td>4</td>
<td>5</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>8</td>
<td>3</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>7</td>
<td>7</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>6</td>
<td>0</td>
<td>5</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>n=23</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MKJB</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>9</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>2</td>
<td>9</td>
<td>6</td>
<td>9</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td>3</td>
<td>8</td>
<td>9</td>
<td>16</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>6</td>
<td>12</td>
<td>4</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>7</td>
<td>1</td>
<td>12</td>
<td>2</td>
</tr>
<tr>
<td>n=35</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SVNR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>6</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>3</td>
<td>6</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>5</td>
<td>0</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>n=15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SVSB</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>5</td>
<td>1</td>
<td>8</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>4</td>
<td>8</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>4</td>
<td>6</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>8</td>
<td>1</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
<td>7</td>
<td>0</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>n=25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>n=3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Teachers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>29</td>
<td>6</td>
<td>21</td>
<td>8</td>
<td>37</td>
</tr>
<tr>
<td>2</td>
<td>17</td>
<td>24</td>
<td>26</td>
<td>24</td>
<td>26</td>
</tr>
<tr>
<td>3</td>
<td>25</td>
<td>25</td>
<td>35</td>
<td>22</td>
<td>19</td>
</tr>
<tr>
<td>4</td>
<td>20</td>
<td>22</td>
<td>13</td>
<td>19</td>
<td>11</td>
</tr>
<tr>
<td>5</td>
<td>9</td>
<td>23</td>
<td>4</td>
<td>27</td>
<td>7</td>
</tr>
<tr>
<td>n=101</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administrators</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>10</td>
<td>4</td>
<td>8</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>2</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>5</td>
<td>1</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>n=21</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### B2. The Significance of Quality Assurance Measures

<table>
<thead>
<tr>
<th>Rank</th>
<th>Improve-</th>
<th>Accounta-</th>
<th>Public</th>
<th>Control</th>
<th>Resource</th>
<th>Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10</td>
<td>6</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>9</td>
<td>5</td>
<td>2</td>
<td>6</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>10</td>
<td>5</td>
<td>3</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td>4</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

**MTSSR**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Improve-</th>
<th>Accounta-</th>
<th>Public</th>
<th>Control</th>
<th>Resource</th>
<th>Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>16</td>
<td>10</td>
<td>5</td>
<td>9</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>12</td>
<td>9</td>
<td>7</td>
<td>10</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>9</td>
<td>2</td>
<td>9</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>1</td>
<td>16</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

**MKJB**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Improve-</th>
<th>Accounta-</th>
<th>Public</th>
<th>Control</th>
<th>Resource</th>
<th>Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

**SVNR**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Improve-</th>
<th>Accounta-</th>
<th>Public</th>
<th>Control</th>
<th>Resource</th>
<th>Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>18</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>11</td>
<td>3</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>6</td>
<td>5</td>
<td>6</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>8</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>1</td>
<td>11</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

**SVSB**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Improve-</th>
<th>Accounta-</th>
<th>Public</th>
<th>Control</th>
<th>Resource</th>
<th>Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

**PLM**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Improve-</th>
<th>Accounta-</th>
<th>Public</th>
<th>Control</th>
<th>Resource</th>
<th>Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>55</td>
<td>26</td>
<td>15</td>
<td>22</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>28</td>
<td>32</td>
<td>18</td>
<td>26</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>28</td>
<td>17</td>
<td>24</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>9</td>
<td>12</td>
<td>12</td>
<td>20</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>3</td>
<td>39</td>
<td>9</td>
<td>15</td>
<td></td>
</tr>
</tbody>
</table>

**All Teachers**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Improve-</th>
<th>Accounta-</th>
<th>Public</th>
<th>Control</th>
<th>Resource</th>
<th>Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>13</td>
<td>7</td>
<td>1</td>
<td>9</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>11</td>
<td>7</td>
<td>4</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>0</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

**Administrators**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Improve-</th>
<th>Accounta-</th>
<th>Public</th>
<th>Control</th>
<th>Resource</th>
<th>Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10</td>
<td>6</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>9</td>
<td>5</td>
<td>2</td>
<td>6</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>10</td>
<td>5</td>
<td>3</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td>4</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>
### SECTION C
#### Quality Assurance of the Assessment Process

**C1. Verification Processes**

<table>
<thead>
<tr>
<th>3a. Do you think the implementation of BDTVEC programmes in your institution should be externally verified and monitored by an external verifier?</th>
<th>Administrators (n=20)</th>
<th>Teachers (n=92)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>17 (85)</td>
<td>3 (15)</td>
<td>81 (88)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3b. The type(s) of monitoring perceived as the most effective in ensuring quality of the assessment process by stakeholders</th>
<th>Administrators (n=18)</th>
<th>Teachers (n=93)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of responses (%)</td>
<td>Number of responses (%)</td>
<td></td>
</tr>
<tr>
<td>External moderators</td>
<td>17 (94)</td>
<td>65 (70)</td>
</tr>
<tr>
<td>Coordinator in the DTE</td>
<td>8 (44)</td>
<td>25 (27)</td>
</tr>
<tr>
<td>PDEC</td>
<td>7 (39)</td>
<td>37 (40)</td>
</tr>
<tr>
<td>Assessment Unit in the DTE</td>
<td>6 (33)</td>
<td>35 (38)</td>
</tr>
<tr>
<td>Internal institution monitoring</td>
<td>14 (78)</td>
<td>40 (43)</td>
</tr>
<tr>
<td>Peer review (between institutions)</td>
<td>12 (67)</td>
<td>30 (32)</td>
</tr>
<tr>
<td>Quality Assurance Unit in the DTE</td>
<td>12 (67)</td>
<td>33 (35)</td>
</tr>
</tbody>
</table>

**C2. Moderators from overseas**

<table>
<thead>
<tr>
<th>1a. In your opinion, do you think the DTE should continue to use moderators from overseas?</th>
<th>Administrators (n=21)</th>
<th>Teachers (n=93)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of responses (%)</td>
<td>Number of responses (%)</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>No</td>
<td>Depends</td>
</tr>
<tr>
<td>12 (57)</td>
<td>0 (0)</td>
<td>9 (43)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2a. In your view, what are the strengths in using moderators from overseas?</th>
<th>Administrators (n=21)</th>
<th>Teachers (n=94)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of responses (%)</td>
<td>Number of responses (%)</td>
<td></td>
</tr>
<tr>
<td>Neutral observer</td>
<td>10 (48)</td>
<td>48 (51)</td>
</tr>
<tr>
<td>Experience and knowledge</td>
<td>12 (57)</td>
<td>70 (74)</td>
</tr>
<tr>
<td>International expertise</td>
<td>15 (71)</td>
<td>57 (61)</td>
</tr>
</tbody>
</table>
2b. What do you think are the weaknesses or drawbacks in using moderators from overseas?

<table>
<thead>
<tr>
<th>Weakness/Drawback</th>
<th>Administrators (n=21)</th>
<th>Teachers (n=94)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timing &amp; the short duration of visit</td>
<td>19 (90)</td>
<td>61 (65)</td>
</tr>
<tr>
<td>High cost</td>
<td>14 (67)</td>
<td>59 (63)</td>
</tr>
<tr>
<td>Unclear and insufficient roles</td>
<td>2 (10)</td>
<td>23 (24)</td>
</tr>
<tr>
<td>Moderators’ lack of professionalism</td>
<td>0 (0)</td>
<td>6 (6)</td>
</tr>
<tr>
<td>Moderators’ lack of local knowledge</td>
<td>8 (38)</td>
<td>40 (43)</td>
</tr>
<tr>
<td>Moderators actually learn from us</td>
<td>1 (5)</td>
<td>14 (15)</td>
</tr>
<tr>
<td>No action taken on external moderators’ reports</td>
<td>10 (48)</td>
<td>46 (49)</td>
</tr>
<tr>
<td>Moderators only reported good aspects</td>
<td>3 (14)</td>
<td>17 (18)</td>
</tr>
<tr>
<td>Staff only reported good aspects</td>
<td>4 (19)</td>
<td>13 (14)</td>
</tr>
<tr>
<td>Lack of transparency in moderators’ reports</td>
<td>3 (14)</td>
<td>20 (21)</td>
</tr>
<tr>
<td>Focusing too much on assessment aspects</td>
<td>5 (24)</td>
<td>25 (27)</td>
</tr>
<tr>
<td>No procedure to check on moderators’ effectiveness</td>
<td>11 (52)</td>
<td>42 (45)</td>
</tr>
</tbody>
</table>

3a. Do you think the DTE could use external moderators from our local institutions and industries?

<table>
<thead>
<tr>
<th>Response</th>
<th>Administrators (n=21)</th>
<th>Teachers (n=93)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>5 (24)</td>
<td>43 (46)</td>
</tr>
<tr>
<td>No</td>
<td>2 (10)</td>
<td>12 (13)</td>
</tr>
<tr>
<td>Depends</td>
<td>14 (67)</td>
<td>38 (41)</td>
</tr>
</tbody>
</table>

4a. Do you think there are enough local experts who could be used as external moderators?

<table>
<thead>
<tr>
<th>Response</th>
<th>Administrators (n=20)</th>
<th>Teachers (n=90)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>7 (35)</td>
<td>35 (39)</td>
</tr>
<tr>
<td>No</td>
<td>13 (65)</td>
<td>55 (61)</td>
</tr>
</tbody>
</table>
SECTION D
Quality and Quality Assurance: Current and Future Challenges

I believe this is an issue/challenge confronting my institution in its effort to ensure quality of VTE provision.

I believe my institution is trying to initiate action to address this issue/challenge.

I believe DTE has already taken action to assist my institution to address this issue/challenge.

<table>
<thead>
<tr>
<th>Issue/Challenge</th>
<th>Adm (n=20)</th>
<th>Tch (n=80)</th>
<th>Adm (n=20)</th>
<th>Tch (n=80)</th>
<th>Adm (n=20)</th>
<th>Tch (n=80)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The need to meet employers' needs</td>
<td>20 (100%)</td>
<td>67 (84%)</td>
<td>17 (85%)</td>
<td>55(69)</td>
<td>17 (85%)</td>
<td>51 (64%)</td>
</tr>
<tr>
<td>Insufficient physical resources in VTEIs</td>
<td>19 (95%)</td>
<td>72 (90%)</td>
<td>17 (85%)</td>
<td>53 (66)</td>
<td>16 (80)</td>
<td>41 (51)</td>
</tr>
<tr>
<td>Coping with rapid technology development</td>
<td>19 (95%)</td>
<td>67 (84%)</td>
<td>16 (80)</td>
<td>48 (60)</td>
<td>14 (70)</td>
<td>39 (49)</td>
</tr>
<tr>
<td>Lack of expertise in quality assurance matters</td>
<td>19 (95)</td>
<td>62 (78)</td>
<td>17 (85)</td>
<td>58 (73)</td>
<td>18 (90)</td>
<td>42 (53)</td>
</tr>
<tr>
<td>Lack of funding</td>
<td>18 (90)</td>
<td>66 (83)</td>
<td>16 (80)</td>
<td>53 (66)</td>
<td>14 (70)</td>
<td>39 (49)</td>
</tr>
<tr>
<td>Lack of experienced and knowledgeable leaders</td>
<td>18 (90)</td>
<td>54 (68)</td>
<td>14 (70)</td>
<td>35 (44)</td>
<td>11 (55)</td>
<td>38 (48)</td>
</tr>
<tr>
<td>Difficulty in empowering staff</td>
<td>17 (85)</td>
<td>59 (74)</td>
<td>14 (70)</td>
<td>42 (53)</td>
<td>13 (65)</td>
<td>37 (46)</td>
</tr>
<tr>
<td>Meeting increasing demands for places of study</td>
<td>16 (80)</td>
<td>59 (74)</td>
<td>14 (70)</td>
<td>45 (56)</td>
<td>12 (60)</td>
<td>31 (39)</td>
</tr>
<tr>
<td>Lack of teaching and learning resources</td>
<td>15 (75)</td>
<td>69 (86)</td>
<td>15 (75)</td>
<td>58 (73)</td>
<td>17 (85)</td>
<td>37 (46)</td>
</tr>
<tr>
<td>Lack of quality assurance strategies</td>
<td>15 (75)</td>
<td>59 (74)</td>
<td>14 (70)</td>
<td>48 (60)</td>
<td>17 (85)</td>
<td>48 (60)</td>
</tr>
</tbody>
</table>

Note: Adm= Administrators (n=20), Tch = Teachers (n=80)

Dii. Three most pressing issues/challenges confronting DTE and its VTEIs

<table>
<thead>
<tr>
<th>Issue/Challenge</th>
<th>Administrators (n=21)</th>
<th>Teachers (n=101)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rank</td>
<td>Rank</td>
<td>Rank</td>
</tr>
<tr>
<td>------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Lack of expertise in quality assurance matters</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Lack of funding</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Lack of quality assurance strategies</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Meeting increasing demands for places of study</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Rapid technology development</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>The need to meet employers' needs</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Lack of leadership in the quality initiatives</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Difficulty in empowering staff</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Lack of teaching and learning resources</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Insufficient physical resources in VTEIs</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
### SECTION E

**Demographic Data**

<table>
<thead>
<tr>
<th>1. Are you a local or an expatriate staff member?</th>
<th>Administrators (n=21)</th>
<th>Teachers (n=93)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local</td>
<td>21 (100)</td>
<td>52 (56)</td>
</tr>
<tr>
<td>Expatriate</td>
<td>0 (0)</td>
<td>41 (44)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. How long have you been working/teaching here (Administrators)/ teaching (Teachers)?</th>
<th>Administrators (n=20)</th>
<th>Teachers (n=93)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-5 years</td>
<td>9 (43)</td>
<td>16 (17)</td>
</tr>
<tr>
<td>6-10 years</td>
<td>4 (19)</td>
<td>24 (26)</td>
</tr>
<tr>
<td>11-15 years</td>
<td>3 (14)</td>
<td>17 (18)</td>
</tr>
<tr>
<td>16-20 years</td>
<td>3 (14)</td>
<td>13 (14)</td>
</tr>
<tr>
<td>20 years and above</td>
<td>2 (10)</td>
<td>24 (26)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. Are you a member of the following committee(s)?</th>
<th>Administrators (n=20)</th>
<th>Teachers (n=93)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Board</td>
<td>8 (38)</td>
<td>14 (15)</td>
</tr>
<tr>
<td>NPAC</td>
<td>8 (38)</td>
<td>17 (18)</td>
</tr>
<tr>
<td>PDEC</td>
<td>10 (48)</td>
<td>59 (63)</td>
</tr>
<tr>
<td>PDEEC</td>
<td>10 (48)</td>
<td>12 (13)</td>
</tr>
<tr>
<td>College Assessment Committee</td>
<td>4 (19)</td>
<td>32 (34)</td>
</tr>
</tbody>
</table>