

## **Chapter 2**

### **Review of Literature**

#### **2.1 Introduction**

Since Open University in United Kingdom first offered undergraduate degrees via ‘virtual classroom’ in 1969 (Educom Staff, 1996), many universities around the world had moved towards this direction. There is no exception in Malaysia.

The Open University of Malaysia or Universiti Terbuka Malayisa (UNITEM) was born out of the ‘mixed’ parentage where its conception goes back to the formation of METEOR (Multimedia Technology Enhancement Operations Sdn. Bhd.), which was set up in 1998, comprising eleven public universities. Its teaching strategies are said to combine the traditional and non-traditional where in addition to study materials, students have access to CD-ROMs, Internet, and digital library to enhance learning strategies. Phenomenal developments in computers and telecommunication technologies had exerted an enormous impact on the way in which instructional materials are created, stored, acquired and delivered to potential end-users (Baker, 1999).

As new technology was used to facilitate teaching and learning, new challenges have emerged for the administrators, faculty staff and students of universities in developing and implementing distance learning program (Drazdowski, 1998; Fulford, 1993).

The rapid growth of electronically mediated learning (e-learning) in higher education institution had prompted several quality assurance agencies such as American Council on Education, the Global Alliance for Transnational Education (GATE) in USA; Quality Assurance Agency (QAA), Research Assessment Exercise (RAE), Higher

Education Quality Council (HEQC) in UK; National Accreditation Board (Lembaga Akreditasi Negara or LAN) in Malaysia, to develop principles, guidelines or benchmarks to ensure these institutions able to provide a quality education to their students.

## **2.2 E-learning Models**

Over the past two decades, the transformation of a simple computer network by a few researchers into a global Internet had a significant impact in many industrial and service sectors including education sector. Higher education institutions, which are committed in providing quality distance and open education had been at the forefront in adopting new technologies to increase the access and training opportunities. Furthermore, distance education operations had evolved through the following four generations (Taylor, 1995; Taylor, Kemp and Burgess 1993):

- Correspondence Model based on print technology
- Multimedia Model based on print, audio and video technologies
- Telelearning Model based on application of telecommunications technologies to provide opportunities for synchronous communication
- Flexible Learning Model based on online delivery via the Internet

The rapid expansion of the Web as a potential course delivery platform had created the e-mode pedagogy of learning. It is important to define the environment in which e-learning could be applied. The move towards e-learning starts from materials, which are available from the existing courses. Britain & Liber (1999) commented on the work of Mason (1998), described that there exist three basic models for e-learning.

(i) *Content & support model*

A relative static body of content or Web package provides the core of the course and is supplemented by tutorial support. The level of on-line interaction is low i.e. no more than 20% of student's time. This model is the most akin to the traditional teaching (Mason, 1998). This model is used in distance learning education.

Universiti Sains Malaysia (USM) was the first university used this model in 1971 followed by Universiti Teknologi Malaysia (UiTM) in 1990. Since the provision of distance learning was gazetted in October 1994, many universities in Malaysia became the distance-learning provider. Among them were Universiti Putra Malaysia, Universiti Tun Razak (Virtual University) and recently Universiti Terbuka Malaysia and Islamic International Malaysia (Roy 2002).

(ii) *Wrap-around model*

The course materials were wrapped by activities such as on-line discussion and support, virtual classroom and access to on-line materials. This model required 50% on-line interaction and discussion of the student's time (Mason, 1998).

Such model of learning exists in Malaysia. A private higher education institution, Informatics Malaysia, had created e-mode learning model as mentioned above. Purpletrain.com is the first e-learning service provider in Asia. The concept embraced by Purpletrain.com was to provide the courses to students without having to leave their countries and without affecting their work schedule. Students are able to access course materials conveniently through Web browser, engage in synchronous chats with their course facilitators, post questions in the discussion rooms, make payments online and many more. (Purpletrain.com, 2002)

(iii) *Integrated model*

This is a resource-based model, where the course is defined by collaborative activities, discussion and joint assignments. The course contents are dynamic and determined by the individual needs and group activities. Resources are contributed from the participants or tutors as the course develops (Mason, 1998). This model remains the future goals in Malaysia where students are able to decide what to be learned and take charge in the courses.

E-learning students' support can be provided in two forms: synchronous and asynchronous. Asynchronous support does not take place in real time. It involved learners and tutors to communicate in some typewritten form at any time. Synchronous support takes place on-line at the same time. This type of support usually in the form of on-line group discussion, question and answer session, tutoring, on-line chat and e-mail (Jones et al, 2002)

### **2.3 Movement on Quality Assurance Models**

The term 'quality' had been defined in many different ways such as conformance to specifications (Gilmore, 1974), conformance to requirement (Crosby, 1979), defect avoidance (Crosby, 1979), meeting and/or exceeding customer's expectation (Parasuraman et al, 1985). As the result of these, there exist different indicators used to describe education quality (Fuller, 1986; Hughes, 1988). Some may refer to input, process, outcome or all of these as quality education. Hence, it is not surprising that there are variety perceptions of education quality among the higher education institutions. (Hughes, 1988).

In the new millennium, there have been a significant impact from economic i.e. knowledge-driven economy, globalisation, advances in information technology, international market competition, people urge a paradigm shift in learning and teaching and demands the reforms or changes in the aims, content relevance to the future (Cheng, 2000b; Daun, 2001; Burbules and Torres, 2000, Stromquist and Monkman, 2000). As the result of these, world-wide education had undergone three type changes / reforms based on the different paradigms and theories of education effectiveness.

### **2.3.1 First Movement of Quality Assurance Models – Internal Quality Models**

The first type of reforms focused on the internal quality assurance in term of improving and ensuring methods and processes of the teaching and learning in higher education institutions to meet the planned educational objectives (Cheng, 2001). The internal quality assurance models were:

#### *(i) The goal and specification model*

This model often used in the assessment of education quality of higher education institutions or education system in any country. It considered quality in education as an achievement of some stated goals and conformance to a given specification. An education institution is deemed to be good education quality if it had achieved or conformed to the specifications listed in the institutional plans. Quality indicators used in this model are student's academic achievements, attendance rate, dropout rate, number of students enrolled. The advantage of this model enables the management to focus on the key component of education.

(ii) *The process model*

This model assumed that the nature and quality of the institution process determined the quality of output. The process in the education institutions usually includes management process (such as leadership, communication, planning), teaching process (such as teaching efficacy, teaching method) and learning process (such as learning attitude, learning experience, attendance rate). This model emphasizes on internal improvement. However, the limitations of this model are that it is difficult to monitor process, gathered relevant data and focus on quality means quality means instead of quality of ends.

(iii) *The absence of problems model*

According to this model, quality in education means the absence of problems and troubles. Adapted from Cameron's (1984) ineffective model, problems that existed in any institutions can be identified by its quality. Therefore, to ensure quality in education, one should check for any existence of problem. However, this model is not sufficient for institution which looking for excellence quality in education.

### **2.3.2 Second Movement of Quality Assurance Models – Interface Quality Models**

The above three models focused on internal effectiveness. Unfortunately, the result of these models failed to satisfy the expectation from the public. Hence, the quality assurance models had shifted their focuses to satisfying the needs of the various stakeholders by providing educational services and held accountable to the public. Among the quality assurance models suggested by Cheng and Tam (1997) are:

(i) *Resource-input model*

This model assumed that quality assurance referred to the effort to ensure different type of quality resources – input and appropriate environment are made available. Among quality indicators used are the high quality student intake, qualified staff recruited, better facilities and financial support from the top management. However, due to the overemphasis on the input, it may reduce the institution's effort to focus on the educational processes and its output. Acquired resources will be the wastage if it cannot enhance the quality of process or output.

(ii) *Legitimacy model*

Under the impact of the rapid changes and developments in surrounding environment, higher education institutions were challenged with the demands for accountability and value of money (Education & Manpower Branch and Education Department, 1991, Working Group on Educational Standard, 1994). Hence, quality in education refers to the achievement of any higher education institution's position & reputation in the community. From the standpoint of this model, higher education institutions are of high education quality if they can survive in a competing environment. This explained why many institutions paid more attention on activities and achievement of public relations and marketing, public images and reputation.

(iii) *The total quality management model*

This model referred the education quality as a set of elements in the input, process and output of the institutions, which provide services that completely satisfy both internal and external requirement by their meeting expectations (Cheng, 1995). The key areas for ensuring quality include leadership, people management, quality planning, operational results and impact on society (Fisher 1994, George 1992). Many institutions had used this model as a tool to enhance quality in education and

increase school effectiveness. (Cuttance,1994; Greenwood and Gaunt, 1994; Murgatroyd & Morgan, 1993).

Another two more quality assurance models that existed are the satisfaction model, which relied on the performance education practices and services that can satisfy stakeholders' needs. It emphasizes on the satisfaction of the client or conformance to clients' expectation. This model is best used in the business sectors. The next quality assurance model is the organizational learning model, which assumed that the quality in education involved continuous improvement and development of members, processes and outcomes of any higher education institutions. The emphasis is to ensure the quality in education (Fullan, 1993; Senge, 1990; Schmuck and Runkel,1985) The quality indicators included the internal process monitoring, environmental analysis , professional development etc. To some extent, this model resembles the process model with the focus on learning behaviour. It had a limited usage if the connection between organizational learning and educational process outcomes is not clearly defined.

### **2.3.3 Third Movement of Quality Assurance Models – Future Quality Models**

Globalisation, social development, advances of information technology required a review on the education system in order to ensure the relevance of the education to the future (Cheng, 2003a). As the world is moving towards a global village due to the advances of information technology, communication and transportation (Albrow, 1990, Naisbitt and Aburdance, 1991), it is expected that learning can happen everywhere and is lifelong. Students can learn from world class teachers, experts and learning material from various part of the world. According to Cheng (2000a), there should be a paradigm shift from the quality assurance model, which is traditional site-bound to a more future focused model.



Future quality assurance should be focused on ensuring the relevance of aims, content practices and outcomes of education to the future of new generations in the new era of globalisation, information technology and knowledge-driven economy.

With these guidelines, it had provided a framework for educators, researchers and policy-makers to pursue quality assurance model for ensuring quality education in the new century.

#### **2.4 Quality Movement in Educational Organisation**

In a traditional method of education, quality was assessed based on two criteria:

- (i) Was the instructor a content or subject expert?
- (ii) Could the learner demonstrate the understanding through certain kind of assessment form?

Contribution from the rapid growth of technology to the educational delivery methods become more complex and as the student's population become diverse, quality of educational activities need to be assessed differently from the traditional method.

E-learning had presented challenges to quality assurance agencies as the traditional indicators such as physical attendance, contact hours, examination, formal academic credential for instructors or trainers i.e. process based approach are not practical in today's education realities (Pond, 2002). The focus in quality assurance had shifted to outcomes based. There should be a set of universal attributes or standards of quality, which are independent of educational delivery methods. It is due to educational delivery has evolved faster than quality assurance methods. The focus should be on how much learning took place and not how it was taught. Quality assurance should function as quality evaluation

tool and empower educational organisations to improve the delivery of educational experiences.

As the result of modern education, quality assurance agencies need to focus on the suitable criteria. Comparison was made by Pond (2002), on the old and new paradigm for accreditation and quality assurance.

<b>Old Paradigm</b>	<b>New Paradigm</b>
Teacher / Institution Centered	Learner Centered
Centralised	Local
Hegemonistic	Deferential
One Size Fits All	Tailored
Closed	Open
Us Versus Them	Collaborative
Quantitative	Qualitative
Prescriptive	Flexible
Time as Constant / Learning as Variable	Learning as Constant / Time as Variable
Teacher Credentials	Teacher Skills
Consolidated Experience	Aggregated Experience
Regional / National	International / Global
Static	Dynamic
Single Delivery Model	Distributed Delivery Model
Process	Outcomes
Infrastructure	Services

**Table 2.1      Old Versus New Paradigm for Accreditation and Quality Assurance  
(extracted from Pond, 2002)**

Quality assurance in the new paradigm tends to be outcomes based approach. It makes sense to have the end-users to decide what is quality to them. As the diversity of student population increases and learning model tends to be student centered, it is appropriate to move away from the process based and move towards the outcome-based approach in assuring quality education in the modern era.

Some researchers expressed their concerns on quality in higher education. Barnett (1994) suggested that due to different views on quality, there were different methods to assess quality. A common method was using a set of performance indicators (PIs). However, PIs are highly limited in their information content i.e. no much information on the quality of the educational processes (Barnett, 1994:68).

The issue was to have a suitable quality concept to facilitate the understanding of quality from various stakeholders. Tam (2001) suggested that an effective performance evaluation framework should allow various stakeholders to voice their opinion. Unfortunately, such framework is not easy to monitor or interpret, as there existed difference in opinions among the stakeholders.

There is a need to balance quality concerns on higher education. One of the well-published methods is the balance scorecard, which was developed and introduced by Kaplan & Norton (1992, 1993, 1996, 2000, 2001). This model was aimed to translate the vision and strategy of the private sector organizations into four different areas i.e. financial perspective, customer perspective, internal and business perspective and innovation and learning perspective. One shortfall identified by McAdam & O'Neill (1999) in this balance scorecard method was difficulties in associating the real balance with the different

perspective. Further critic made by Norreklit (2000) was the perspectives were interdependent and had a linear cause and effect chain. There were little research evidences available on the use of the balance scorecard approach in the academic environment. Kaplan & Norton (2001) balance scorecard is best fitted in the administrative service and a process based approach. Hence, it was not suitable in quality assurance in e-learning mode.

Examination on another quality model, European Foundation for Quality Management (EFQM, 1999), which developed to meet the need of the public. It aimed to assist organization by measuring where they are in the path to excellent, helping them to understand the gaps and simulating the solutions. Similar feature as the balance scorecard was it involved the use of both financial and non-financial measures that link to the need for continuous improvement and the importance of processes (McAdam & O'Neill, 1999; Pupius, 2001). Based on the finding from the case study that explored the use of EFQM model as a basis of self-assessment in six schools, within the same higher education institution, limitations in this model were found as follows:

- EFQM model is too prescriptive, albeit in philosophy and not methods or techniques used;
- process is too time consuming and require adequate resources;
- prior knowledge and deliberate strategy is required for the successful implementation
- high degree of 'subjectivity' in scoring EFQM criteria because evidences provided not always can be verified. (Osseo-Asare & Longbottom, 2002)

Again, there seem to be a limited quality assurance model for higher education institution, in particular in the e-learning environment setting.

## 2.5 E-learning Quality Assurance

As quality assurance in higher education is moving towards the outcome based approach, it is important to identify the factors that quality assurance system used for the assessment. The Quality Assurance Agency for Higher Education (QAA) in UK was established in 1997 and took change in developing on working paper on quality assurance issues in e-learning mode. As the quality issues were complex and interrelated with many other academic functions, it focused on the area important to delivery of high quality education programs. The assessment could be categorized into six aspects of provision (QAA, 1997):

### (i) *curriculum design, content and organization*

It is aimed to reflect the attention to local, regional and national priorities. Higher education institutions are expected to have a close links with professional and regulatory bodies and established strong local partnership in which learning needs could be discussed. It is expected that the higher education institutions to demonstrate high level of expertise in curriculum design, which involved getting professional staff to be part of the curriculum design team.

Curriculum design should be able to make an important contribution towards providing more opportunities to enrich the students' practices through engagement with the theory taught during the course and gave the students' confidence to try new approaches. This can be realized by using the innovative and imaginative ways to capture students' interest of learning.

### (ii) *teaching learning and assessment*

It is aimed to provide a clear articulated strategy for teaching, learning and assessment, which characterized by student centered provision, widening participation and promotion of lifelong learning. High quality teaching emerged

where teaching to become student focused, interactive, well planned, used imaginative delivered and a variety of teaching approaches.

Assessment should be comprehensive and matched to learning outcome and appropriate to level of study. Good quality feedback is characterized by detailed and constructive comments, which clearly matched to the criteria required. Having dialogue with students as part of the feedback mechanism can be a useful approach where students are actively involved in teaching. It is a critical edge to give some helpful comments but failed to indicate to students the way in which improvement could be made.

(iii) *students progression and achievement*

Students, who pursue their study in any higher education institutions, came from various backgrounds, races and needs. Hence, it is important to ensure that these students are equipped towards employment related qualification i.e. by having short courses which links to the requirement of the market.

To maintain good student progression to employment i.e. students successfully entered into employment after completed their studies or showed some added professional understanding and improved their working practice. Courses offered should be able to promote additional job satisfaction or provide necessary insight to implement career change. To maintain high satisfactory level of achievement, which is in line with the intended learning outcomes, assessment should include critical thinking, evaluative, analytical and research skill.

(iv) *student support and guidance*

Pro-active support and guidance to students should be made easily accessible and approachable. To have an effective and well-received system, dedicated members of staff should take overall responsibilities for support and guidance such as facilitating arrangement for peer support, providing dedicated subject-based staff to give guidance from time to time and well-structured support systems for wide range of students' needs. Documentation on tutorials and written material on academic issues and support services can be useful especially planning for future improvement.

(v) *learning resources*

Learning resources should be aligned with the higher education institutions teaching and learning strategies. Investment in library stock, technical support staff and IT equipment are some of the ways to increase these resources. The availability of on-line journals will add further flexibility and accessible off-site are some of the strategies to make Internet access available to both students and staff. In the virtual learning environment, video-conferencing facilities can further improved communication. This is just one of the innovative support through the use of IT. Technical support teams should make available whenever needed in the resource center. Teaching facilities should vary accordingly to the need of the groups, size and the need of learning events.

(vi) *quality assurance and enhancement*

There should exist a system of annual review to lead to reflective action plan and range of proposals for improvement. Best practice was to include involvement of staff in planning, review and staff development activities. Such participation usually leads to a coherent and collegial approach to improve quality. Self-assessment

document can be used as a basis for review at the higher education institution to enhance quality.

The above introduced system focused directly on learning outcomes not outcome approach. Shifting towards an outcome approach requires changes in these quality assurance processes and takes time to accomplish. Such move implies a move towards communication in the quality assurance processes and would provide quality information about the institution's academic standards and benchmarks.

Committee of Quality Assurance and Distance Learning, University of Maine System USA (1998) focused on the following factors in their quality assurance:

(i) *faculty issues*

The quality of the instructors had the strong influence on students learning. Good instructors should be able to encourage student –faculty contact, foster cooperation among students, encourage active learning, gives prompt feedback to students, emphasize on high expectations and time on task, respect diverse talents and many ways of learning (Chickering and Gamson, 1996). Furthermore, good instructors should be an expert in the content area and aware that different pedagogical strategies able to help students in achieving the learning objectives. Hence, the faculty needs to consider evaluating faculty's need, provide professional development opportunities to staff concerned, technical support resources, availability and reliability of technology and departmental support



(ii) *student issues*

The rapid expansion of technology also had a strong influence on learning environment and students need to develop technological competencies at the early stage of their studies. Developing student's technical skill and competencies, library resources, academic advising and ensuring the reliability of technology, which can enhance the student's learning outcomes.

(iii) *technology issues*

This concern was related to technologies and pedagogies and the need for coordination and support in education process. To ensure quality education, there should exist a policies and practices that can facilitate the use of instructional technology, guidelines of acquiring and using the technology. Maintenance and expansion technology should be part of the issues in technology planning process.

As the learning context is ever changing, there is need to develop quality assurance guidelines or principle in the technological-based distance education. Committee of Quality Assurance and Distance Learning, University of Maine System USA had also reviewed documents from various accrediting agencies on the issues of the quality assurance and distance education. Seven Principle of Good Practice for electronically –based distance education had been endorsed by the Committee:

(i) *Principles of curriculum and instruction*

Electronically based courses should be coherent and complete. The courses should involved interaction between faculty and students and among students. The management or regulatory bodies should be monitored such courses.

(ii) *Principles of institutional context and commitment*

There should be a review and approved process to ensure that the objectives of each courses is met through the appropriate use of technology.

(iii) *Principles of faculty support*

There should be a support from the faculty such as providing training for those who were involved in teaching via the use of technology.

(iv) *Principles of resources for learning*

It is to ensure that there are sufficient learning resources available to students

(v) *Principles of student services*

It is aimed to provide students with clear, complete and timely information on the curriculum requirement of the courses, expectation of technical competence and skill and financial aids. It is served to ensure that students have adequate access to support their learning.

(vi) *Principles of commitment to support*

There should exist a policy that ensures the ongoing support, both financial and technical to enable students to complete their studies.

(vii) *Principles of evaluation and assessment*

The evaluation on educational effectiveness which includes assessment of student learning outcome, students and staff satisfaction which served to improve the quality of the education.

Valentine (2002) highlighted some issues on the distance learning education mode.

(i) *technology concern*

Technology does not teach student, effective teacher do (Palloff & Pratt, 2000). Hence, it is important to assure technologies are used as an aid in the design and delivery of courses. The effectiveness of learning is based on the preparation, the instructor's understanding of the need of the students (Omoriegbe, 1997). Students need to be ensured that quality instruction is given throughout the distance education programme. This can be done by providing training to instructors who are involved 'not only use the technology by also to shift the way in which they organized and deliver the materials' (Palloff and Pratt 2000: 3).

(ii) *faculty concern*

Atkinson (1983, cited in Ng, 2000) noted that a course can be efficient but not cost effective if the output does not contribute to the learning objectives i.e. it is be efficient in the wrong time (pg 306) Such problem existed when training were not provided to the concerned staff. Effective distance education will take place when a well-trained staff delivered the instruction.

Equipment and hardware malfunction can be a great detriment to the effectiveness of distance education. Teaster and Bliesner (1999) found that the unexpected technical problems had a negative effect on the overall quality of the instructor's presentation.

(iii) *students concern*

Student support is another important issues in assuring quality services which are provided for them. Not all students are suited to distance education and not all subjects are best taught via this medium. Hardy and Boaz (1997: 43) found that distance education learning required students to be more focus, better time manager

and able to work independently and with group members. Students may have a difficult time during their courses of studies especially in distance learning where eye-contact and proximity are limited. Hence, it is important to ensure that students can be obtained assistance to help them and it should be easily assessable throughout the duration of the course.

In reviewing the issues arisen by several researchers from various articles, summary was made that there were overlapping on some these issues. Therefore, quality assurance benchmarks were designed to assess the quality in these areas by several quality assurance agencies such as the National Education Association, American Council on Education, the Global Alliance for Transnational Education (GATE) and many more.

The Institute of Higher Education Policy in USA had carried out a case study to validate the benchmarks developed by the quality assurance agencies. This case study was done in three phases:

- comprehensive review of literature to compile the benchmarks recommended by other agencies and various published articles. This resulted forty-five benchmarks were identified.
- selected of institutions with the specified criteria. Six institutions were selected representing both the private and public sectors.
- assessment of the quality based on the benchmarks found in (i) on their distance education program.

The analysis of data and information from interview resulted in the elimination of thirteen benchmarks and addition of three benchmarks. The final list of twenty-four

benchmarks was derived to ensure quality in Internet based distance education. These benchmarks cover seven areas namely:

- (i) *institutional support benchmarks* which cover the activities by the faculty to ensure that the conducive environment was maintained for on-line learning.
- (ii) *coursework support benchmarks* which provide guidelines to ensure that standards were used for coursework development, design and delivery of the course.
- (iii) *teaching or learning support benchmarks* which cover the quality pedagogy was used in the distance education.
- (iv) *course structure benchmarks* which ensure proper procedures that support the teaching or learning process.
- (v) *student support benchmarks* which ensure the quality services that generally given to students in the higher education institution.
- (vi) *faculty support benchmarks* which refer the quality of services given by the faculty in assisting the on-line teaching
- (vii) *evaluation and assessment benchmarks* which assess the effectiveness of the evaluation process in evaluating the on-line learning

## **2.6 Quality Issues in Malaysian Higher Education Institutions.**

There was two noticeable system of higher education in Malaysia in the 1990s: the public versus the private higher education system. The rapid growth in private higher education had helped to save currency outflow and produce the semi-professional and managerial personnel needed to meet the demands of the changing economy in Malaysia (Lee 1996b, Noran and Ahmad 1997).

As the result the two higher education system, there existed two group of students. The majority of students in private higher education are non-Malay who followed a Western model curriculum and used English as language medium. The majority students in the public universities are bumiputras and their curriculum was taught in Malay (Noran and Ahmad, 1994). Furthermore, most private higher education graduates seek employment in the private sector whereas the bumiputras will seek employment in the public sector. There are concerns about the quality of the education provided by the higher education institutions. To control the standards of higher education institutions, the National Higher Education Council was formed in 1996 where the grading system was developed to assess the effectiveness of each department and faculty.

The National Council of Higher Education was to coordinate the direction and to oversee the development of both public and private higher education institutions. Lee (1999b) cited that the formation of this council had transformed the government's role in the higher education institutions from the regulatory to supervisory. In making Malaysia as a regional center of education excellence, Najib (1996) indicated that the quality was an issue that needs to be addressed in the term of accountability and academic excellent. This is the partly reason of the establishment of the National Accreditation Board.

The National Accreditation Board was launched in 1997 with the objectives to ensure quality and promote an uniform curriculum in education. The Board had formulated policies on standards and quality of study programme and had the authority of granting official accreditation for all certificates, diplomas and degrees (Anuwar 1997). There are six aspect required by all private higher education system:

(i) *quality of staff*

It refers teaching staff to have the appropriate academic qualification, teaching experience, research skill and ratio between full time and part time commitment

(ii) *quality of management*

It involved having a proper documentation and filing of records of staff, course materials, student's registration, examination papers and results.

(iii) *quality of student services and facilities*

It required the institutions to provide detailed explanation on the nature, type of facilities, which were provided to students.

(iv) *outline of course structures*

It required the institutions to provide details on the course objectives, references and assessment used in any courses offered.

(v) *the institution's environment*

It emphasized on the safety aspect, suitability and conducive environment for the students to study.

(vi) *rationale of offering the study programme*

It required the institutions to provide acceptable reasons for any study programme offered. The courses should be relevant in term of meeting the demand of human resources and economic needs of the country.

Quality control model above required a careful implementation as it may hinder the realization of the objectives stated in the National Education Philosophy. Furthermore, the Government needs to assume the supervisory roles in promoting quality development (Goegebuure, Kaisen, Maassen and de Weert 1993a, Van Vught 1991). Hence, the

Government required to select committee to monitor certain quality parameter which are expected from the higher education institutions.

It is recommended that Malaysian National Accreditation Broad to develop strategies alliances to work collaboratively with the quality assurance agencies such as Quality Assurance Agency in UK, Australian Universities Quality Assurance in Australia and Institute of Higher Education in US to facilitate the Malaysia National Accreditation Broad to gain its word recognition.

In creating awareness among the private higher education institutions, measures, which enable the improvement in the critical areas or quality benchmarks should be implemented. With the competitive business environment and tougher controls from the Government, the private higher education institutions should make an effort to gain competitive advantages through quality enhancement.

From a thorough review of literatures, there are limited quality assurance model for e-learning in Malaysian private higher education institutions. Therefore, quality assurance model developed from the case study conducted by Institute of Higher Education (US) in 2000, will be adapted for developing quality assurance model in e-learning mode in the local setting. It is hoped that the result from the study will be able to provide guidelines in implementation a successful quality assurance model for e-learning mode in Malaysian education context.



## 2.7 Summary

E-learning had a significant impact in modern education. Both public and private higher education institutions need to ensure only quality education is provided to the students. According to Barnett (1994), the concept of quality viewed differently by various stakeholders. Hence, there should be a set of universal of quality standards or benchmarks, which are able to function as an evaluation tools to ensure quality and empower improvement in delivery of quality education.

Various quality assurance models were discussed which had focused on traditional method of assessing quality i.e. the process-based approach. In e-learning where learning is student-centred, quality assurance focuses had shifted to an outcome-based approach.

Quality agencies in UK, US and Malaysia had developed some form of quality standards or benchmarks to ensure quality education. Detailed analysis on these standards had revealed that there was overlapping on these standards which could be categorised into seven categories namely institutional support benchmarks, coursework support benchmarks, teaching or learning support benchmarks, course structure benchmarks, student support benchmarks, faculty support benchmarks and evaluation and assessment benchmarks. These benchmarks had been validated and tested in the e-learning environment by Institute of Higher Education (US) in the case study, which was conducted in 2000. The adapted quality benchmarks will be used to develop the quality assurance model to fit the local setting in Malaysia.