Trajectories of Attaining and Sustaining Quality in E-learning

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Abstract: This case study of the Zimbabwe Open University looked at trajectories of attaining and sustaining quality in e-learning in an open and distance teaching university. Data was collected from a purposive sample of 56 students and 15 members of staff from two regional campuses. The study revealed that e-learning should not be taken as a supplementary mode of delivery but as the key pedagogical instrument. An e-learning centre has to be created to develop e-learning materials, sourcing digital materials for the students and staff and supporting faculties and departments in delivering e-learning courses. Experts must be employed who will evaluate appropriateness of e-learning procedures, accuracy of e-learning content and utility of e-learning courses. There is also need to periodically seek user perceptions and act on feedback promptly. The research recommended increased use of e-learning not as a supplementary mode but an economical way of expanding educational services and widening opportunities and making use of emerging technologies to expand the delivery of quality education. More research could be done on the interactive aspects of e-learning.

Keywords: Quality, E-learning, Open and Distance Learning, Online Learning, attaining quality and sustaining quality

INTRODUCTION

The increasing delivery of higher education in Zimbabwe has far reaching implications on quality at a time when online distance education programs are growing rapidly. In other areas of the world there is growing acceptance of the role of distance education in delivering quality education. Allen and Seaman (2008) reported a 12% increase in students taking at least one online course from 2007 to 2008. This growth is expected to continue over the next five years. There are some estimates that are placing the number of students taking online classes in 2014 at over 18.5 million students (Nagel, 2009). Thus universities are expanding current online offerings and creating new programs to address growing enrollment. Hart and Rush (2007) point out that academics have intimated that recent developments in quality initiatives in higher education are derived directly from a concern that expansion may impact adversely upon standards. At the same time that online enrollments are increasing, most colleges and universities are facing unprecedented pressures to focus on quality products and bring value to the students. This is happening at the same time in which state funding for higher education is being cut dramatically and university endowments have decreased in value (Stratford, quoted in Neely and Tucker 2010).

At the very least, one can argue that with the increasing participation rate and halving of the unit of funding, there have been commensurate increases in the attention being paid to a variety of quality assurance procedures Hart and Rush, 2007). In response to these growing pressures the Zimbabwe Open University introduced an innovative online programme in

2010 to join the bandwagon for e-learning through ZOUONLINE (www.zou.ac.zw/zouonline). However, the calls for quality remained louder amidst the joy for the new development. In this regard, this research took the debate further and tried to interrogate trajectories of attaining and sustaining quality in the new online regime in an open and distance teaching context.

The quest for quality characterises the modern world of business in all walks of life (Manyanga 2008). This means that the provider of goods or service on one hand and the consumer or customer on the other need to agree on value for money exchanged for goods or services provided. Thus, willingness to exchange is based on mutual satisfaction. The provider is keen to offer the services or goods that are saleable to the customer and the latter is willing to pay for the same upon satisfaction based on predetermined quality standards. In open and distance teaching setting, the institution is a provider while students and beneficiaries of the output of the institution can be seen as customers, also often referred to as stakeholders. The stakeholders for a teaching and learning institution include parents, employers, the government and the general public. An open and distance teaching institution in this case, should therefore, strive to meet the demands of a wide range of interested parties whose satisfaction must be assured if the service is to be considered credible. To attain quality open and distance learning institutions are increasingly using technologies to support the delivery of their courses, resulting in a range of models of technology enhanced provision (Jara and Mellar 2009). Thus, the Zimbabwe Open University is one such institution that has benefited from the use of e-learning. In this study, e-learning course refers to a blended course where a substantial fraction of the course is delivered online.

However, the challenge facing ZOU is that there is little information available about how the institution can ensure quality in the e-learning courses and to what extent the institution can apply quality in the same manner and spirit as it is applied in the face-to-face courses. This paper aims to start to fill this gap. It presents a case study research intended to throw light on how open and distance teaching institutions can deliver quality e-learning courses, particularly the trajectories for attaining and sustaining quality. It is the belief in this paper that an institution with clear trajectories of attaining and sustaining quality will be able to have a strategy in place that will benefit that institution. Strategic management is defined as the ''art and science of formulating, implementing, and evaluating cross-functional decisions that enable an organization to achieve its objectives'' (David, 2003). Thus trajectories of attaining and sustaining quality will be the building blocks for the strategies that enable the Zimbabwe Open University to attain its goals.

Defining quality
A survey of the literature indicates that quality is one of the most contested definitions to emerge. One of these definitions indicates that quality is specified degree of excellence (Dar-es-Salaam Maritime Institute, cited in Manyanga 2008)). Another definition indicates that quality is degree of fit between what a customer wants and what a customer gets (Peninsula Technikon, cited by Manyanga 2008). It follows from these definitions that the level of satisfaction with the effectiveness of institutions to provide training, which conforms to standards and attains excellence as demanded by learners and other stakeholders is what constitute quality in a learning institution. From the definitions given here, it can be pointed out that quality has to do with three important catchwords namely degree, excellence and satisfaction. The term quality can therefore be taken to mean the extent to which consumers of products or services are satisfied that these have met the prescribed degree of excellence. This suggests the need for establishing quality standards to help to measure and assure the extent of goodness or degree of excellence of a product or service (Manyanga, 2008).

The definition of quality will affect the quality framework used in any one institution. Quality frameworks are conceptual structures used to identify the range of factors considered important to decisions in relation to quality (Inglis, 2008). They are of great significance and value in e-learning. The value of a quality framework depends upon the way in which it has been constructed. While there is a substantial literature examining the factors that should be considered in judging quality in relation to courses offered online (McLoughlin and Visser, 2003), little attention has been given to the evaluation of the importance of these factors themselves. Inglis (2008) agrees and adds that while one can construct a plausible quality framework purely on the basis of intuition, the value of the framework for measuring quality will depend on the correspondence between the elements of the framework and the factors that impact the effectiveness with which the students learn. In Open and Distance Learning (ODL) what is needed is a way of certifying the adequacy of the framework. The users of quality processes seldom give thought to the strength of the frameworks upon which these processes rely. Judgements of quality are made against a set of criteria. However, if the criteria are flawed, then the judgements of quality that rely on those criteria will themselves be flawed.

Concerns about quality in ODL
Open and Distance Learning (ODL) is a general expression covering all forms of learning and teaching different from traditional face-to-face training. E-learning is only one form of ODL but ODL is more general in terms of technological means. The pedagogical approach puts the student's needs at the root of the ODL quality process (Dumont and Sangra (2006). This approach is comprehensive: it encompasses all the processes needed to validate in real situation the produced methodology and documents.

Concern amongst practitioners in the field of e-learning about the issue of quality has grown in recent years (Oliver, 2005). Concern about quality in e-learning has also grown amongst education and training providers and national accreditation and quality agencies (Quality Assurance Agency, 2004). Concerns about quality are being manifested as initiatives to implement processes for assuring that minimum standards are being met, and that an overall improvement in the quality of courses offered online will be achieved over time (Inglis, 2008). Implementation of quality in Higher Education is nowadays a very important issue. To do it, particularly with those programs regarding Open and Distance Learning (ODL) or e-learning is still a real challenge (Dumont and Sangra 2006).

It is important to make it clear what kind of e-learning quality has aroused concern in this paper. CEDEFOP (2005) argues that quality in e-learning has a twofold significance. First, e-learning is associated in many discussion papers and plans with an increase in the quality of educational opportunities. In this respect, e-learning ensures that the shift to the information society is more successful. This aspect of e-learning is called 'quality through e-learning' (CEDEFOP 2005). Second, there is a separate but associated debate about ways of improving the quality of e-learning itself. We term this context 'quality for e-learning'. It is this second area that has been of concern in this study.

Defining e-learning
E-learning generally refers to methods of learning which use electronic instructional content delivered via the internet and is a term which is synonymous with Web-based or online learning (Trombley and Lee, cited in Lee 2006). The widespread proliferation of internet technologies and applications provides incredible opportunities for the delivery of education and training, and with rapidly increasing internet usage e-learning has now become a portable and flexible new method for learners to gain essential knowledge.

Quality culture for e-learning

Quality has become in the last years, a very relevant aspect for the organizational life. It should be connected directly with the strategic planning and with the improvement and it can affect any product, process, service, person, etc (Dumont and Sangra 2006). In this sense, quality affects even the organizational culture. Absolutely anything goes close with quality, and ODL Higher Institutions (ODL HI) are not an exception. In the university under study, quality is held in high esteem but its effects on organisational culture in e-learning are yet to be investigated.

A quality culture needs to be at the centre of any institution that is engaged in e-learning. According to Morgan (2002), culture is expressing social realities. He explains that talking about culture usually means to refer to patterns of development which are manifesting in the knowledge, the beliefs, the values, the legislation and the everyday rituals of a society (Morgan, 2002). Different societies and organisations have different patterns of social development. Morgan emphasises that culture is a social and collective phenomenon which refers to the ideas and values of a social group and is influencing their action without them noticing it explicitly. Organisations are described as socially constructed realities which are existing in the heads and through the ideas of its members as well as in very concrete realities and relations (Morgan, 2002).

Whilst literature agrees that quality culture is crucial, practices on the ground suggests otherwise. CEDEFOP (2005) concluded in their study that a quality gap exists in institutions of higher learning engaged in e-learning. The first of the 'quality gap' is that among the target groups, appreciably more e-learning providers (70 %) than e-learning users (33 %) have experience of quality in e-learning. And in both groups, it is decision-makers (77 %) who have disproportionately high experience of dealing with quality by comparison with the operational level (63 %), to say nothing of learners (4 %). Learners in particular do not feel that they have been adequately informed about e-learning quality. The second 'quality gap' is that although almost three quarters (72 %) of all respondents regard the issue of 'quality in e-learning' as 'very important' – with some gradation between 'decision-makers' (78 %), the operational level (73 %) and learners (57 %) – not many institutions have as yet applied this belief in practice. The University under study is not left out. Around 34 % describe the issue as part of the philosophy of their institution, yet only 16 % of respondents state that a quality strategy has actually been implemented in their own institution (CEDEFOP 2005). If the institution under study is affected by a similar quality gap, then e-learning quality is under threat. It is thus pertinent, imperative and logically relevant to look at the ways and trajectories of attaining and sustaining e-learning quality.

Meaning of quality in e-learning

In this age of globalisation, knowledge acquisition has become the critical means for gaining competitive advantage, and as such learning has become a crucial element of knowledge acquisition, application and creation (Longworth and Davies, cited in Lee, 2006). Thus, setting up a course online can potentially raise the profile and extend the reach of any teaching institution. It also requires a major investment of time and energy and the constant evaluation of the distance programme by students and faculty to ensure positive results. All the effort involved might come as a surprise, considering distance learning is not new. It has indeed existed for over a century, but it's only in the past few years that e-learning programmes have started to proliferate and become an almost ubiquitous educational option.

In this context, it is important to be sure about the meaning of quality in e-learning because when we talk about quality in e-learning, we assume an implicit consensus about the term 'quality'. In fact, however, 'quality' means very different things to different e-learning providers. (Ehlers, 2004) has suggested the following set of categories:

(a) exceptionality,
(b) perfection or consistency,
(c) fitness for purpose,
(d) adequate return,
(e) Transformation .

The meaning of quality in e-learning is also a contested area. A research done in the European Union countries revealed that the respondents in their study took a primarily pedagogical view of quality in e-learning (CEDEFOP, 2005). As regards what respondents understand by quality in e-learning, the predominant view is that quality relates to obtaining the best learning achievements (50 %). Together with 'something that is excellent in performance' (19 %), this primarily pedagogical understanding was more widespread than options related to best value for money or marketing (CEDEFOP 2005).

According to CEDEFOP (2005), although there are already a wide range of strategies and proposals for quality development, many of those involved in e-learning as decision-makers at an institutional or policy level, as teachers applying e-learning at the operational everyday level, or as media designers developing e-learning, as well as many users, demonstrate too little quality competence to meet the 'quality' challenge. This study therefore investigates primarily what trajectories of attaining and sustaining quality can be adopted and implemented in an ODL institution, and what degree of quality competence users, decision-makers and learners demonstrate in dealing with the issue of quality. This is because distance education holds greater promise and is subject to more suspicion than any other instructional mode in the 21st century. Many traditional educators view distance education with skepticism and express concerns about quality control. Some of this skepticism is justified, in part, by the historical roots and nature of distance education.

A number of studies have already examined e-learning on the internet, with most of these studies investigating the relationship between instructional materials and the structure of such materials, teaching strategies, the personalities of learners and the self-control and behaviour of students in terms of their self-discipline when using the internet as the main teaching tool (Lee, 2006). Sadly, however, the trajectories of attaining and sustaining quality in e-learning appeared to receive little attention. Evidence on the ground appears to point at this gap. For instance, in their investigation of the relationship between self-controlled learning and the online search behaviour of students in universities Eom and Reiser (2000) found that younger students needed a more organized structure of course materials and ongoing help. In another related study, McManus (2000) concluded that the personalities of learners, the structure of the materials and the teaching strategies each had some influence on the ways in which students self-regulated their learning behaviour. Against this background, this research seeks to take this debate further and interrogate the trajectories of attaining and sustaining quality in e-learning in an open and distance education context.

This research will also be directed by the Technology Acceptance Model developed by Davis (1989). This model has been widely used over the past decade as a means of forecasting the extent to which new technologies will be adopted in the field of information systems (IS), with the findings of many studies being consistent with TAM applications. In their various applications of the TAM, a number of studies have confirmed that user perceptions of

usefulness and the ease-of-use of a system are two important antecedents of technology adoption, and have also suggested various ways of broadening the overall applicability of the TAM (Lee, 2006:519). Against this background, this research set forth to find out what the situation in the university under study would be.

Educators concede that distance education is here to stay. However, this can only be feasible if current technological trends and innovations in distance education are harnessed. The future of any open and distance education institution will only be secure if it rests on its ability to adapt to technological trends. There are parallels between the development of technology and the increased acceptance of distance learning that an institution engaged in e-learning cannot ignore. This was a case study of one university because peculiarities and traditions of each individual institution need to be taken into account.

The objective of the study was to investigate the trajectories of quality in e-learning at the Zimbabwe Open University. It also sought to come up with ways of attaining and sustaining quality in e-learning and help to promote the acceptance of distance education which runs in parallel to the developments in technology.

The purpose of this study was to explore the ways, directions, means pathways and trajectories, of e-learning quality. The goal is to give the public, ODL practitioners, leaders and education authorities a greater understanding of this phenomenon and suggest steps to deal with this challenging issue. Armed with this information, institutions should be able to do a better job with practices and policies that rapidly address an issue that today's ODL leaders find increasingly challenging and difficult to ignore.

METHODOLOGY

The research described in this paper was undertaken using a critical event narrative inquiry method. The method was outlined by Webster and Mertova (2007). It was further refined with focus on the area of higher education quality in the research study described in this paper. Narrative inquiry as such is not a completely new method; it has existed in various forms in a range of fields for more than two decades (Herman, et al 2005; Elliot, 2005). However, the various narrative inquiry approaches have been quite disjointed, and embedded in the particular disciplines where they have been applied. Thus, Webster and Mertova (2007) developed a critical event narrative inquiry with its proposed application across a wide range of higher education disciplines. The critical event narrative inquiry method was found well suited for the investigation of human-centred and complex areas, such as higher education quality. As a qualitative research method, it was argued, it is capable of focusing on aspects of higher education quality which would be frequently overlooked when using quantitative research methods. In relation to other qualitative research methods, it was argued that it is more efficient in dealing with large amounts of qualitative data, through its targeted focus on eliciting critical events in professional practice, in this instance, of academics and students.

A critical event, is an event which would have significantly impacted on professional practice of, for instance, e-learning adoption and practice. E-learning at ZOU has drastically, entirely or considerably changed the academic's perception of their professional practice, or even their worldview. "Critical event" can only be identified retrospectively, and such an event would have happened in an unplanned and unstructured manner. The causes of a "critical event" might be "internal" or "external" to professional practice of an individual, or entirely personal. A "critical event" has a unique, illustrative and confirmatory nature in relation to an investigated phenomenon. In this study, the case study data was collected from

a purposive sample of 56 students and 15 members of staff from two regional campuses using an open-ended questionnaire.

RESULTS AND DISCUSSION
A generation behind the development in technology
The respondents in this study alluded to the fact that the trajectories of attaining and sustaining quality are blocked because of the fact that both students and staff are a generation behind developments in technology. They had this to say on the issue:

> *We are miles behind the rest of the world in technological knowhow. All our pathways must take cognizance of this drawback.* Another concurred and added:
> *What must be clear is that we are a generation behind the developments in technology. Our trajectories of attaining and sustaining quality must take this aspect into account.*

The respondents' concerns that they are a generation behind in the developments in technology appear to be a genuine assessment of the real situation. Some universities have taken strides in this direction. For instance, at the University of Western Sydney (UWS), their response to the quality agenda in e-learning is well structured and emphasises quality improvement through the development of academic staff skills in e-learning design (Ireland et al, 2009). The Teaching Development Unit at UWS developed a new e-learning quality framework aimed at implementing this objective across the university. Some lessons can be drawn from UWS by ODL institutions since this framework consists of three parts: basic standards, advanced standards, and a staff development toolkit. Taken as a whole, the framework enables academic designers to develop their own e-learning design skills from a basic level right through to advanced, pedagogical uses of e-learning, with explicit support systems in place at all stages (Ireland *et al.,* 2009). Although this distributed model of development is "slower and more challenging," it has the advantages of "developing capacities for the longer term and keeping 'ownership' with the academics and their departments" (Salmon, 2005).

Fostering Sense of Community
The respondents in this study adverted, made reference and gave heed to the fact that in e-learning, they are isolated from their tutors and fellow students. Some of the related statements include:

> *E-learning is excellent but I need to interact with others. The need for fostering a sense of community is one trajectory of attaining and sustaining quality in e-learning.*

Increased interaction and a sense of community were concerns raised in this study. Elsewhere, interactivity of e-learning was mentioned as a winning formula for e-learning. There seems to be a few determining factors essential to a winning e-learning formula. Research by Fisher and Baird (2005), "Online learning design that fosters student support, self-regulation, and retention", suggests that the successful outcome of distant learning programmes depends in part on how effectively students and teachers interact with one another, because "When online learners have a stronger sense of community, they feel less isolated and have a greater satisfaction with their academic programmes". The very notion of proximity is inherently absent to distance learning, but a lot of activities can be implemented to instigate a virtual sense of community and build bonds between students and faculty. Some lecturers devise online discussions, synchronous video classes, outside lecture communities on shared topics of interest, peer evaluations and e-journals. to fill this gap.

Mission Critical

The BBC reported in March 2005 that the e-learning movement in Europe was now gaining momentum with a "growing demand for online courses". A survey of 150 universities highlighted that they now "saw e-learning as 'mission critical'" and showed an emerging trend, among nearly two thirds of those institutions, to "collaborate with other institutions – both nationally and internationally". For the respondents in this study, their mission critical for the trajectories that attain and sustain quality in e-learning is that:

> *E-learning should not be taken as a supplementary mode of delivery but as the key pedagogical instrument*.

As the e-learning system promises a new way of delivering education, the Technology Acceptance Model (TAM) could be useful in predicting students' acceptance of an e-learning system (ELS). However, very few studies have adopted the TAM as a model for explaining the use of ELS designed and provided by ODL institutions. Thus, in this regard, the respondents in this study were of the opinion that e-learning must not be taken as a step-son of open and distance learning. Rather, it must be the main pedagogical instrument.

E-learning centre

The respondents in this study were of the opinion that a fully equipped, functional and well-staffed e-learning centre need to be established to support them in their studies. One respondent put it this way:

> *An e-learning centre has to be created to develop e-learning materials, sourcing digital materials for the students and staff and supporting faculties and departments in delivering e-learning courses.*

The need for an e-learning centre appears to confirm that the central goal of any quality assurance project in higher education must always be the improvement of student learning opportunities. In line with this, the strategic, institutional objectives of the UWS e-learning quality framework are best expressed as the improvement of individual course sites, using standards and criteria, combined with the development of academic staff skills, through the toolkit and associated resources, for the explicit purpose of improving student learning in the online environment (Ireland, *et al* 2009).

Employing experts

Knowles and Kalata's (2007) ideas of hiring experts to oversee quality role out of an e-learning programme were reproduced in this study. Some related statements from the respondents include:

> *Experts must be employed who will evaluate appropriateness of e-learning procedures, accuracy of e-learning content and utility of e-learning courses.*
> *In the trajectories of attaining and sustaining quality in e-learning, the university needs to blend subjects and curriculum experts to oversee quality e-learning role out.*

Neely and Tucker (2010) point out that online universities seem to follow three major models for curriculum development. A number of universities have developed departments devoted to curriculum development. Subject matter experts and curriculum developers with expertise in course design are hired in full-time positions to develop courses (Knowles and Kalata, 2007). Many universities follow the traditional model of paying honorarium to current faculty for course development, while some universities use part-time curriculum developers to create courses. Other universities use some type of blended model using current faculty and outside experts to develop courses.

The e-learning quality competence picture
The e-learning quality competence picture in the university under study appeared grey. The individual competencies of both the e-tutors and those of the e-learners were distributed very unevenly across the two regions studied. The investigation focused on two constructs in particular:

> **Knowledge of quality, to ascertain, determine and establish the awareness and familiarity with the topic of those who develop, use or learn from e-learning. The results were that while those who develop e-learning materials were familiar with quality issues, those who use or learn from e-learning were confused, deskilled and rendered ineffective by the practice.**
>
> **Experience of quality, in this case the study looked at the length of experience of putting quality development measures into practice. The results were that the quality department was in the thick of things in ensuring quality unfortunately the staff suffered from lack of skills in e-learning quality.**

The e-learning picture in this study appeared grey owing to among other things shortcomings in staff skills. This was contrary to what was happening in other universities. For instance, at the University of Western Sydney (UWS) the toolkit was included in their e-learning quality framework to provide a pathway for academics to develop higher level skills in e-learning design(Ireland, *et al* 2009). In this context, it is envisaged that the toolkit and the development strategies for basic standards share a core objective of supporting academics' development of their own e-learning design skills. This is contrary to the e-learning quality picture in this study which appears grey owing to the fact that there are difficulties in achieving innovative design when academic designers are simply unaware of the potential of e-learning to deliver these kinds of innovations. The message to ODL institutions here can be that online learning environments can enable new approaches to teaching that are not available in an offline setting (Salmon, 2005:207). These possibilities may not readily suggest themselves to teachers unless they are skilled enough o deliver quality services.

Unpacking multidimensional approaches to e-learning quality
A very interesting finding and one with far reaching implications for e-learning is that the process of measuring e-learning quality should be multidimensional. Some issues of concern raised by respondents in this study include the following**:**

> *There is concern from the university authorities for e-learning through the provision of the technology needed for this purpose. However, there appears to be some negligence of the human aspect of quality, the interactivity aspect of quality and the accessibility aspect of e-learning.*

Having raised these concerns, one respondent added to say that:

> *To attain and sustain quality in ODL, there is need to take a multidimensional approach in which issues to do with the curriculum, the methodology, the interaction, the teaching staff and the assessment practices are all considered in the trajectories that attain and sustain quality.*

A multidimensional approach to measuring e-learning quality as a trajectory was also raised by Inglis (2008) who pointed out that a course's quality cannot be ranked along a single dimension further arguing that when educators think of quality they tend to want to arrive at a single global measure. To Inglis (2008), this is a fruitless quest for the reason that quality subsists in a variety of properties and a course's quality cannot be measured along a single dimension from high to low. The unidimensional approach to measuring quality overlooks

the fact that the delivery of courses is a multi-faceted activity and that the process of measuring quality in education relies on unpacking the range of factors that impact the learner's experience and measuring these separately (Inglis 2008:248). The lessons for ODL institutions is that, in order to bring together the various elements that contribute to the quality of a course, most quality processes rely on the use of a quality framework of one type or other. A quality framework defines the set of variables in terms of which quality is measured and the way in which it is measured. It may also offer a ground for practical design and implementation of a quality methodology, a training package for staff in charge of its implementation, a validation field and a knowledge database for results and best practice dissemination (Dumont and Sangra, 2006:3). Failure to consider appropriate quality frameworks can result in unwarranted reliance being placed on factors for which there is no underpinning empirical support. The set of criteria used in quality processes are embedded in or based on the particular quality framework that is used. The judgements that are made in relation to quality when a quality framework is being used therefore depend very much on factors that impact the adequacy of the framework: the elements from which a framework is constructed, the way in which the elements go together, and the way in which the framework is used in practice (Inglis, 2008**).

Evidence based validation processes

The use of an evaluative process as part of reflective practice in designing e-learning environments is critical if quality is to be improved (Ireland, et al 2009). In line with this thinking, a crucial and vital finding that is important for developers of quality frameworks is that they need not fall into the trap of substituting intuition and guesswork for evidence-based validation processes. Some supporting statements are:

> *There is need to conduct research in order to provide evidence that will inform e-learning policy and practice.*
> *There is also need to periodically seek user perceptions and act on feedback promptly.*

The idea of enquiry based practice was raised by Lee (2006:80) who argued that collaborative enquiry involves practitioners who come together in an institution to investigate and learn more about their practice in order to enhance the learning of online students. Inglis (2008:348) concurs and adds that there seems to be a taken-for-granted assumption that if the originator of a framework has thought sufficiently about the development and delivery of courses appropriately, then this will suffice to assure its validity. However, this confidence in the omnipotence of individual contributors to the literature appears to be misplaced since people attend to different aspects of course delivery. What may be considered important by one person may not be considered important by another. Yet even if the need for undertaking some form of validation is recognised, there is still the question of how that should be undertaken.

Role of support staff

Another key aspect of online education that emerged in this study is the role of support staff in tying up the loose ends and bringing the programme together. Some substantiating statements were:

> *The need for support from the registration process to the technical support and the infrastructure necessary to the technical development and maintenance*
> *A well trained, skilled and committed ancillary staff should be in place to keep the e-learning programme afloat.*
> *Support staff is a highly dependable resource without the assistance of which effective e-learning programmes would not be able to function.*

In this respect teaching institutions need to invest a significant amount of resources to ensure that all the right media have been used for their educational programmes and the right personnel have been assigned to their implementation. Fisher and Baird (2005), point out that in online learning design that fosters student support, self-regulation, and retention and to facilitate the information management process in e-learning programmes some institutions also resort to systems known as virtual learning environment (VLEs) in the UK and learning management system (LMS) in the USA. For such systems to function well and be useful to students, the need for support staff is critical. This idea is further supported by Neely and Tucker (2010) who argued that most online faculty members today are hired specifically to work with students in a facilitator's role around the course content. The unbundling of the traditional faculty role results in the need for a number of support personnel. Faculty supervisors, trainers, instructional technologists, academic advisors, and graders are used to support the faculty member.

CONCLUSIONS

In conclusion, there is much work to be done in developing trajectories of attaining and sustaining quality in e-learning. This study addressed only minimally the trajectories from a case study of one university in only two regions of that university. Future studies examining these trajectories would need to include other universities and a lager sample. It may also include course development, delivery, and maintenance for not only the instructor but also for the online coordinators, the faculty schedulers, the instructional design coordinators, the course evaluators, and the quality assurance personnel. As online courses continue to proliferate and scrutiny of higher education costs increases, university administrators need to identify the trajectories that attain and sustain quality in e-learning in their contexts.

- The paper has argued that the landscape of the higher educational experience has changed dramatically in the last decade. There is widespread realization that quality is now, and will also in future be, of great importance in every field of work, regardless of the country or group to which one belongs. At the same time, while the imperative for quality assurance initiatives for e-learning in tertiary education is broadly acknowledged, there is insufficient experience of implementing quality in e-learning, and the level of information is described by the respondents as inadequate. Experts are needed and so is the need to include evidence-based practices in e-learning. It is the contention of this study that e-learning should not be taken as a supplementary mode of delivery in the university under study, but as the key pedagogical instrument. An interesting paradox can be discerned from this study which requires further systematic investigation. Whilst the modes and availability of electronic communication available to the student body have expanded rapidly over the past decade, there is scant evidence that this is utilised to allow students a greater sense of commitment and psychological ownership over the courses which they study, particularly when compared with previous generations of students. E-learning should not be taken as a supplementary mode of delivery but as the key pedagogical instrument.

RECOMMENDATIONS
- Further research should be undertaken to examine whether, with increasing experience over time, there is any reduction in the strength of the factors influencing technology acceptance at the initial stage of adoption.
- An e-learning centre has to be created to develop e-learning materials, sourcing digital materials for the students and staff and supporting faculties and departments in delivering e-learning courses.

- Experts must be employed who will evaluate appropriateness of e-learning procedures, accuracy of e-learning content and utility of e-learning courses.
- There is need to periodically seek user perceptions and act on feedback promptly.
- The is need for increased use of e-learning not as a supplementary mode but an economical way of expanding educational services and widening opportunities and making use of emerging technologies to expand the delivery of quality education.
- More research ought to be done on the interactive aspects of e-learning.

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