ABSTRACT

The demand for monitoring and evaluation capacity in Africa sharply exceeds the supply. This has increased pressure on universities to produce the needed quality of M&E experts. While some commendable progress has been made, significant gaps remain in the way of any efforts to produce the needed human resources with expertise, competencies, skills and tools in the field. The number of teachers for M&E has remained glaringly weak and the resources within universities remain poor. Many universities have introduced curricula in the field but they have remained stuck to the traditional ways of delivering these curricula. The traditional way entails students being full-time at universities and rarely has there been adoption of ICT opportunities. Indeed, the graduates that have been produced remain stunted in the use of ICT for addressing some of the field’s solutions. To address this problem, we propose a blended-learning approach to the teaching of M&E in Africa. With the blended approach, students across a variety of disciplines, faculties, countries and levels can study in the same classroom environment. The UTAMU e-learning model is advanced to provide a justification for this approach.
INTRODUCTION

The article provides a background and rationale for a blended-learning approach to the teaching of M&E in Africa in order for students across a variety of disciplines, faculties, countries and levels to study in the same classroom environment. The article contextualises M&E capacity development in Africa. It also provides a discussion of e-learning trends. It conceptualises blended-learning as a concept and approach. It explains the UTAMU approach and model to teach M&E in terms of a block release model that includes the face-to-face first block release, the first self-paced learning, the second face-to-face block release and the examination process. It contextualises the UTAMU hybrid model and explains how and why this model could be used in Africa. The critical success factors for implementation in terms of policy, resources, planning and scheduling are finally highlighted.

BACKGROUND AND RATIONALE

Online learning is compelling educators to confront existing assumptions of teaching and learning in higher education. The technologically sophisticated student community and the benefits provided by the use of computers make it imperative for leaders of higher education to be challenged on how to position their institutions to meet the connectivity demands of prospective students. Garrison, and Kanuka, (2004:104) authoritatively assert that “given the increasing evidence that Internet information and communication technologies are transforming much of society, there is little reason to believe that it will not be the defining transformative innovation for higher education in the 21st century”. More and more research continues to demonstrate the growing trends where students learn better with computers. The notion of blended-learning which involves students learning using technology (computers, mobile phones, i-pads) with the support of lecturers in online activities and some minimum face-to-face (f2f) interactions has received great interest.

In recent times, the African continent has been increasingly urged to scale the supply of M&E professionals and practitioners to match the high demands for M&E professionals. In an attempt to heed this call, both public and private universities have responded by introducing majorly postgraduate academic programmes in the field of M&E. Despite this positive response, the teaching of this field in universities still faces the locus and focus challenges (Basheka and Byamugisha 2015:75). The locus challenge relates to where M&E courses should be located. The focus dilemma relates to the methodological focus in the teaching of M&E given its multi-disciplinary character.

Dabelstein (2003:369) suggests that when evaluation capacity is judged to be insufficient, activities should be carried out to support the development of the necessary capacities. Universities and other academic institutions have a societal obligation to design appropriate curricula and undertake all academic processes to produce graduates with appropriate knowledge, skills and competencies. Hicks, Reid, and George (2001:143), demonstrate how there has been several demands for universities to
provide for a larger and more diverse cross-section of the population, to cater for emerging patterns on educational involvement which facilitate lifelong learning and to include technology-based practices in the curriculum.

In our context, this demand relates to undertaking deliberate efforts to produce needed graduates. In their attempt to meet this societal call, education institutions must react to technological change likely to free resources in an attempt to produce desired results and realise potential. Indeed, most institutions of higher education can be described as lurching about (Garrison, and Kanuka 2004:96). Quite resoundingly, universities are challenged to adopt appropriate learning modalities in the delivery of all academic programmes but more so in M&E course delivery. The approaches should meet the needs and expectations of the varied student categories.

For any emerging discipline like M&E cross-national, inter-disciplinary and inter-university knowledge and experiences present an appropriate lens of analysis. Students across a variety of disciplines, faculties, countries and levels can study in the same classroom environment. On this subject, Rovai, (2002:330) presents some benefits; arguing that connection with others is essential to realise a community of inquiry characterised by reflective written or spontaneous verbal dialogue. A sense of community is also necessary to sustain the educational experience over time to move students to higher levels of thinking. This is important as “students with stronger sense of community tend to possess greater perceived levels of cognitive learning”. This goal is only attainable through a blended-learning educational experience.

In blended-learning, the role of the teacher is paramount especially for supporting student activities. An appropriate strategy is as important as the role of the teacher and so is adequate infrastructure. Garrison, and Kanuka, (2004:96) however, demonstrate how blended-learning is both simple and complex. At its simplest, blended-learning requires a thoughtful integration of classroom face-to-face learning experiences with online learning experiences. There is considerable intuitive appeal to the concept of integrating the strengths of synchronous (face-to-face) and asynchronous (text-based Internet) learning activities. At the same time, there is considerable complexity in its implementation with the challenge of virtually limitless design possibilities and applicability to so many contexts.

So, and Bonk, (2010:189) in a web-based Delphi method to capture the judgement of recognised experts in the field of online learning discovered that many educators suggested positive impacts of e-learning related to changes in pedagogical practices but unfortunately, despite the increasing adoption of learning technologies, pedagogical changes in online learning had been slow. Many online courses focused on content delivery and tutorial-based instruction but simply turning classroom lectures into online learning formats did in their view not necessarily provide students with the opportunities for rich interactions arising from engagement in activities that make learning experiences meaningful. However, as Bonk et al. (2006:31) argue, with a learner-centred construction of blended-learning, the choices of what and when to blend will increasingly tend to be manipulated and controlled by learners rather than teachers. The next section describes the state of M&E capacity development in Africa before the application of a blended-learning descriptive strategy is discussed.
MONITORING AND EVALUATION CAPACITY DEVELOPMENT IN AFRICA

Building evaluation capacity in any country requires top-level commitment at political and organisational level. Unfortunately as Khan (1998:315) suggests some parts of the developing world, such as Africa, find themselves with top political leadership who are unaware of the benefits of M&E. This dilemma is worsened by mismanagement, corruption and manipulation of government institutions to serve the interests of a vested few and this makes it difficult to establish M&E mechanisms that seek accountability and transparency in the public sector. Everything, however, is not lost in Africa. Dabelstein (2003:365) avers that evaluation institutions exist in many developing countries, but most have little impact on policy and management decisions due to a number of barriers including poor demand; lack of a culture of accountability (often related to ethics or corruption); and lack of feedback mechanisms into decision-making processes. The strongest barrier appears to be the lack of demand: credible evaluation is a function of good governance, i.e. demand for accountability more than of institutionalisation of evaluation and/or professional capacity.

Evaluation capacity has been insufficient as demand exceeds supply of M&E professionals. Donor agencies utilise different tools to promote the development of evaluation capacity, notably ‘learning by doing’ training (e.g. their involvement in the definition of questions, data collection, methods); or technical assistance to personnel, as part of monitoring of programme/project, or other kinds of training. One of the primary goals of university education in M&E is to scale up evaluation capacity on the continent. Evaluation capacity building (ECB) remains a hot topic of conversation, activity, and study within the evaluation field. Arguments advanced in its favour include the need to enhance stakeholders’ understanding of evaluation concepts and practices, and in an effort to create evaluation cultures, organisations have been implementing a variety of strategies to help their members learn from and about evaluation (Preskill and Boyle 2008:1).

Hauge (2003:1) makes us believe that Evaluation Capacity Development (ECD) helps countries build sound governance hence improving transparency and building a performance culture within governments to support better management and policy-making, including the budget process—through support for the creation or strengthening of national/sectoral M&E systems. Meanwhile, Horton et al. (2003) state that it is the human resources capacity which is regarded as the ability to deploy human capital and includes the competencies, knowledge, attitudes, motivation, and behaviours of individuals in the organisation. It is the greatest single element that impacts directly on all other capacities (Hall et al. 2003). The third capacity is financial capacity which relates to the ability of an organisation to develop and deploy financial capital. This includes marshalling appropriate financial resources for evaluation and practicing prudent financial management for those resources as well as ensuring proper accountability to the various stakeholders. Financial capacity challenges are a common problem among organisations; some find difficulties fulfilling their missions due to problems associated with project funding and the lack of financial support for infrastructure.

Milstein and Cotton (2000:1) are of the strong view that evaluation capacity means the ability to conduct an effective evaluation (i.e. one that meets accepted standards of the discipline). This definition does not tell explicitly who is to have that capacity to conduct an effective evaluation -individuals or organisations. That is why in a more elaborate definition,
<table>
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<th>University</th>
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| University of Cape Town                       | Master's in Programme Evaluation  
PhD in Programme Evaluation                                                   | Institute of Monitoring and Evaluation      |
| Muhimbili University of Health and Allied Sciences | MSc Monitoring and Evaluation                                               | School of Public Health and Social Sciences  |
| Kenyatta University                           | Master's of Public Health  
(Monitoring and Evaluation)                                                  | School of Public Health                     |
| African Nazarene University                   | Master's of Arts in Monitoring and Evaluation                              | Institute of Open and Distance learning      |
| Mount Kenya University                        | Master's of Arts in Monitoring and Evaluation                              | School of social sciences                   |
| Daystar University                            | Master's of Arts in Monitoring and Evaluation                              | Department of development studies, school of human and social sciences |
| Egerton University                            | Master's of Education in Measurement and Evaluation                       | School of Education                          |
| Catholic University of Eastern Africa         | Master's of Education In Educational Research And Evaluation               | –                                           |
| The Open University of Tanzania               | Master's of Arts in Monitoring and Evaluation                              | Department of Economics, Faculty of Arts and Social Sciences |
| Cavendish University Zambia                   | Postgraduate--Monitoring and Evaluation                                    | Education and Social Sciences               |
| Mzumbe University Tanzania                    | Master's of Science in Health Monitoring and Evaluation                   | School of Public Administration and Management |
| Tanzanian Institute of Project Management     | Postgraduate Diploma in Monitoring and Evaluation                         |                                             |
| University of Stellenbosch                    | MPhil in Monitoring and Evaluation  
Postgraduate Diploma in Monitoring and Evaluation  
PhD in Evaluation Studies                                                          | Faculty of Arts and Social Sciences Centre for Research on Evaluation, Science and Technology |
| University of the Witwatersrand               | Postgraduate Diploma in Public and Development management in the field of public & development sector monitoring & evaluation.  
Master's in Management of Public & Development Sector Monitoring & Evaluation (MM-M&E) | School of Public and Development Management |
| University of Johannesburg                    | Master's (MA) in Policy Evaluation                                         | Department of Public Governance             |
| University of Ghana                           | Master's of Public Health  
(Monitoring and Evaluation)                                                  | School of Public Health                     |
Gibbs, Napp, Jolly, Westover, and Uhl (2002: 261) consider evaluation capacity as the extent to which an organisation has the necessary resources and motivation to conduct, analyse, and use evaluations. Resources may relate not only to the people but finances and other materials which are needed to undertake an evaluation through the planning, implementation and utilisation phase. Evaluation capacity is expected to lead to certain outcomes at individual, group, organisational and society level. However, capacity outcomes are hard to measure and are often considered intangible (Wing 2004). This dilemma of outcome measurement is caused by conceptual challenges.

Toulemonde (1999:162) underscored the importance of developing the demand for evaluation and reinforcing an evaluation culture through intense and sustained communication about evaluation. It is crucial to keep the conversation going about developing and implementing evaluation activities, processes, structures, and systems that sustain high-quality evaluation practice. M&E systems, however, are not easy to introduce and sustain (Khan 1998:324). Stockman and Meyer (2013:26) submit that the development of theoretical and methodological approaches and models in evaluation research is often dominated by American authors. Their training programmes for evaluators have expanded to cover the non-university sectors with many schools, state institutions, companies and different national professional associations offering such courses.

As a technical term Krishnan (2009:9) argues a discipline implies the organisation of learning and the systematic production of new knowledge and often disciplines are identified with taught subjects, but clearly not every subject taught at university can be called a discipline. Krishnan (2009:10) further informs us that a new discipline is usually founded by way of creating a professorial chair at an established university. Elkins (2006:2) on his part clarified that M&E as a discipline must favour pragmatism, for instance by explicitly recognising resource constraints that exist in development assistance programming, and practical ramifications of the challenges. State-of-the-art tools and methods in the social sciences, for instance, ideally should inform programme M&E design and implementation, but in pragmatic terms no efficient full-scale programme can responsibly allocate resources adequate to support social-science-calibre research. On his part, Golding (2009:2) suggests that because there are various important but complex problems, phenomena and concepts that resist understanding or resolution when approached from single disciplines, a multi-disciplinary approach is needed. While disciplinary depth is essential for investigating these complex issues, they also require what Howard Gardner calls a ‘synthesizing mind’ (2006:63).

In Africa, several universities offer courses in M&E. Basheka and Byamugisha (2015:89) present a list of universities offering qualifications in M&E. If blended-learning is to be applied, the various universities can have a collaborative offer of academic delivery.

**THE E-LEARNING TRENDS**

E-Learning is a concept that is not too old in the academic arena but focuses on the use of electronic means to provide learning and is characterised by dynamic advancement of technology (Tynjala and Hakkinen 2005:318). This means that there are numerous ways of providing electronic learning that is attributed to the changes in technology today. Originally, e-learning was traced back to the provision of distance education by a small
group of educators aimed at providing the underserved population (Thompson 2005). But with the introduction of the Internet the practice of undertaking e-learning got into the mainstream of higher education (Thompson 2005). Meyen et al. (1999:18) define e-learning as the acquisition and use of knowledge which is distributed and facilitated primarily by electronic means. These electronic means may include Internet, intranet, extranet, CD-ROM, videotape, DVD, TV, cell phones, and personal organisers. E-learning is therefore a method that uses ICTs to facilitate and enhance the learning process ubiquitously. This new way of providing learning can be carried out in several ways which include asynchronous and synchronous learning (Hastie et al. 2010:9). That means that learning can be achieved in real-time and not real-time depending on context of learning and the activities that have been adopted during the learning process.

Current trends in e-learning recognise that learning is all about knowing the requirements of the learners and to be able to provide for them (Naidoo 2012:42). Therefore, in order to support different learning requirements, several paradigms, models and approaches have been developed to provide highly effective e-learning. The approaches sometimes differ as per the stakeholder focus (learner or tutor).

Conole et al. (2004:17) noted that technology is causing significant impact within institutions creating change in educational processes and service provision. The potential ways in which these technologies are drastically changing is, however, not well known to many people. There are a lot of scenarios, case studies that involve integration of ICT in teaching and learning that have not been published before but contain great innovative ideas. Dabbagh (2005:25) argues that e-learning is a different paradigm that needs new theoretical frameworks that differ or blend those of traditional learning. This means that the initial pedagogy (the art of teaching and learning) that exists within the traditional learning is not wholly removed but transformed and practiced in a different way.

THE BLENDED-LEARNING CONCEPT AND APPROACH

Today there is a growing demand from academic institutions to adapt new models of teaching and learning that suit the 21st century. The demand is attributed to driving forces that are connected to the emerging digital society; there are more people on the move who need to study ubiquitously, learners have become more knowledge constructors than knowledge recipients, the world has become a global village and advancement in technology is enabling the emergence of new teaching and learning models. The rules of the game (teaching and learning) are changing so rapidly and this has resulted into what is termed blended-learning. Blended-learning is a new model of teaching and learning that integrates both the traditional face-to-face teaching and learning with e-learning; uses a variety of instructional models, a mix of pedagogical models and a blend of spectrum of learning models (Brown 2003:14; Osguthorpe et al. 2003:227; Verkroost et al. 2008:499; Ross and Cage 2006:155). The emergence of this concept of blended-learning has been due to the required flexibility that needs to come into teaching and learning. This flexibility is all about learning ubiquitously, freeing up time, collaboration with the known and unknown. Oliver (2001:204) mentions that flexible learning is all about expanding the choices on how learning and teaching is done. It is all about doing what was originally done in a designated classroom in a different way.
but learning and teaching effectively taking place. Graham, (2006:3) also defines blended-
learning as a method that mixes various learning events that include face-to-face classroom
activities, live e-learning and self-paced learning. This learning method encompasses a
variety of tools to create flexible rich learning environments that simulate and maximise the
learner’s potential to learn.

Research has shown that blended learning has a greater role in improving flexible
learning as noted by Young (2002:A33). It is the role of the people implementing blended-
learning to make sure that they realise their goals of flexible teaching and learning. There is
increasing adoption of this new model of teaching and learning as witnessed by So and Bonk
(2010:189); Graham and Robison (2007:83). This is more practiced in higher institutions of
learning today but a lot more has to be done to realise its significance (Driscoll 2002:54).
Blended-learning can also be looked at as a hybrid of traditional learning where traditional
activities such as content presentation, group work, assessment submission, discussions,
class roll-call can now be done virtually without any geographical hindrance. Teachers
and students can now interact ubiquitously (from anywhere, at any time and as they wish)
without constraint.

Literature has shown that there are a variety of ways of undertaking blended-learning and
several frameworks have been developed to enable this to happen (references). It should
be noted that blended-learning varies from place to place, from institution to institution,
technology to technology, and also the existing infrastructure and resources. Therefore
institutions cannot simply pick and use the existing blended-learning models without taking
into consideration their environments and the perspective for use (Oliver and Trigwell
2005:17). Lubega and Williams (2003:5001) note that providing a learning process with
a variety of teaching and learning methods during an education process greatly improved
learning. This is the reason why higher institutions of learning are more inclined to provide a
variety of teaching methods in order to encourage effective learning.

THE UTAMU APPROACH AND MODEL IN TEACHING M&E

UTAMU has been at the forefront in developing innovations for learning and has fully
undertaken the use of a blended-learning approach for teaching M&E at postgraduate level.
The blended-learning that has been used by UTAMU has two models of delivery (block
release model and UTAMU hybrid model). The two models have been developed to provide
effective teaching and learning for postgraduate students.

BLOCK RELEASE MODEL

The block release model is one that has been developed to provide flexibility in teaching
postgraduate students who do not have time to come to class all the time due to the nature of
their work. Today, there are so many graduates out there who are interested in undertaking
postgraduate studies but are prohibited by the nature of their work. UTAMU provided a
tested solution where students could easily attend face-to-face classes without causing
friction within their routine work schedules.
Figure 1: UTAMU Block Release Model

**SEMESTER ONE**

- **First Block Release**
  - School of Business and Management – Weeks 1 & 2
  - School of Computing and Engineering – Weeks 1, 2 & 3

- **Self Paced Learning**
  - 4 weeks of self study
    - Weeks 4, 5, 6 & 7
    - Online engagement
    - Continuous assessment
  - School of Computing and Engineering – Weeks 8, 9 & 10

- **Second Block Release**
  - 4 weeks of self study
    - Weeks 11, 12, 13 & 14
    - Online engagement
    - Continuous assessment

- **Self Paced Learning**
  - Exam
    - Week 15

**SEMESTER TWO**

- **Self Paced Learning**
  - 3 weeks of self study
    - Weeks 1, 2, 3
    - Online engagement
    - Continuous assessment

- **First Block Release**
  - School of Business and Management – Weeks 4 & 5
  - School of Computing and Engineering – Weeks 4, 5 & 6

- **Self Paced Learning**
  - 4 weeks of self study
    - Weeks 7, 8, 9 & 10
    - Online engagement
    - Continuous assessment

- **First Block Release**
  - School of Business and Management – Weeks 11 & 12
  - School of Computing and Engineering – Weeks 11, 12 & 13

- **Study & Exam**
  - Week 14 & 15

- Block Release Teaching done on
  - Friday 18:00 – 21:00
  - Whole day Saturday and Sunday
  - Both offline and online activities assessed
The teaching of M&E has been split into five main schedules that are well planned by both management and teaching staff. These schedules are Face-to-Face First Block Release, Self-Paced Learning, Face-to-Face Second Block Release, Self-Paced Learning, and Examination. All these schedules are planned for 15 weeks of the semester.

**Face-to-face first block release**

This is a period of two consecutive weeks when face-to-face learning is provided to the students on Friday (18:00 – 21:00), Saturday (08:00 – 19:00) and Sunday (08:00 – 19:00). The different modules under study will be time-tabled within the three days for at most three hours of face-to-face. During this face-to-face block release, the tutor releases the first half of the semester content to the students and also interacts with them on the different learning activities. During this scheduled time, the students will also be provided with assessments; case studies, scenarios and other learning activities that are thought to be of relevance to the module.

**First self-paced learning**

This is a period that comes immediately after the block releases (one and two) and involves students going away from the university for approximately four weeks of self-study. Students will be able to interact with the online content and participate in other online activities that have been organised by the tutor. Some of the online activities that the students participate in include student-led chats, tutor-led chats, discussion forums, webinars and online assessments. Such activities which are programmed by the tutor can be taken ubiquitously hence providing students with the learning mobility that suits their working schedules. Such activities will be further described under the UTAMU hybrid model.

**Face-to-face second block release**

This is a period of two consecutive weeks where face-to-face learning is provided to the students on Friday (18:00 – 21:00), Saturday (08:00 – 19:00) and Sunday (08:00 – 19:00). This second block release will happen just after the first self-paced learning schedule. It involves providing students with the second half of the semester content during the face-to-face sessions. During this schedule, the tutors will also provide tests in incidences where they were unable to provide them during the first self-paced learning schedule. It should be noted that a lot of online interaction is required when students are having their self-paced learning. This is the last face-to-face interaction that students and tutors have before they go away for self-paced learning that precedes their semester exams.

**Examination**

This is the last schedule of one week that students attend and here they are examined on the semester content. During this schedule, all students are required to attend in person to sit for their semester examinations. For some of the foreign students who cannot make it for the semester exam at UTAMU, exams are sent to their prescribed countries under the gazetted
centres. After the exams the gazetted centres will send the exam answer booklets back to UTAMU for evaluation.

The block release model was developed to provide flexibility to students experiencing hardship to undertake postgraduate studies due to their work schedules. However, it is an effective model for even those students without jobs because it provides them with ample time to engage in other activities that may not be academic.

**UTAMU HYBRID MODEL**

The UTAMU hybrid model is a model that utilises different forms of electronic means to provide enriched teaching and learning ubiquitously. This model was developed in order to tap into all the available technologies for teaching and learning. The model has a variety of stakeholders who participate in the education process at different levels as shown in Figure 2.

*Figure 2: UTAMU Hybrid Model*
Stakeholders

During the teaching and learning process, different stakeholders participate in different activities. We have digital teachers who are the tutors who participate in the face-to-face sessions and also the online activities. Usually all UTAMU tutors are retooled to have the necessary digital skills required for a digital teacher. These include skills related to content authoring, social media, assessing online, chatting and discussing online. The students are also provided with further skills in the first week at UTAMU in order to equip them as digital students ready for the 21st century learning. The digital family is the family of the student which is also provided with access to the UTAMU resources.

UTAMU content space

This is the e-learning system that is used by UTAMU to connect all the different stakeholders ubiquitously. UTAMU’s e-learning system has been built based on the MOODLE framework which is one of the outstanding open source content management systems. Through the content space, stakeholders are able to receive all content resources and participate in any of the online activities that are organised by the tutors. Through the content space tutors can engage with the students during the self-paced learning sessions ubiquitously.

Databases

The UTAMU hybrid model has several databases that are interlinked to provide the appropriate resources to the stakeholders through the content space. Some of the databases that are interlinked include the UTAMU database that houses all the locally authored content of tutors. The open access databases are also connected in order to provide open access content to the stakeholders. The UTAMU library database contains all reading resources for all the students to access ubiquitously. The social application database contains all the social applications that are used by both students and tutors.

The UTAMU hybrid model has an integrated layer which purpose is to integrate all standards, policies and regulations that are provided by accreditation bodies. These are all integrated together with the layer and then used to determine what is to be contained in the database and hence what is provided to the stakeholders. The UTAMU hybrid model provides the opportunity to stakeholders to tap into the most recent technologies for use during the educational process. Through the UTAMU hybrid model, discussion forums, chatting among stakeholders and assessing for learnt skills, can easily be done.

SCALING IT TO AFRICA

In Africa, there is an ever increasing demand for all levels and forms of education coupled with governments’ limited capacity to expand provision of education through traditional bricks-and-mortar institutions. According to Aderinoye, Siaciwena and Wright (2009: online journal), Open and Distance Learning (ODL) is the answer to the growing demand for education in Africa. ODL offers one way to increase the capacity of educational systems.
without incurring the cost of putting in place extra physical facilities by allowing learners the flexibility to remain in their communities or in their duty posts all through or most of the time. This is also the solution for prospective students that are working full-time hence unable to be full-time students such as health workers, teachers, those working upcountry/field staff, those with very demanding jobs such as bankers, etc.

In developed regions such as North America and Europe, ODL programmes are delivered fully via ICTs such as Learning Management Systems (LMSs), video conferencing, Facebook, immersion in Second Life among others. However, this is not yet possible in Africa due to several challenges such as lack of high-speed Internet infrastructure, access to computers, and human resources with the required expertise to effectively implement and support hi-tech delivery methods (Aderinoye, Siaciwena and Wright 2009: online journal). As a result, distance education in Africa is still largely paper-based which has several limitations. For example, at the University of Education Winneba (UEW), Ghana, distance students are given paper-based instructional materials which students receive late and in some cases, do not reach them at all (Ohene and Essuman 2014:164). Basaza, Milman and Wright (2010: online journal), noted that although distance education particularly in the higher education sector could accelerate development within Uganda, there are several challenges that still inhibit its implementation namely; lack of adequate physical and human infrastructure to cope with the demand for post-secondary education–most of the more than 40 registered universities are located in the central or urban regions of the country, yet the majority of the population lives in rural areas, inadequate expertise in distance education, poor attitude towards distance learning; among others.

The UTAMU blended-learning model addresses most of the current challenges of providing higher education faced by African countries. The limited physical infrastructure challenge is addressed by use of different electronic means to provide enriched teaching and learning ubiquitously during self-paced learning phases. Therefore, the number of students a university can take on at any one time is not limited by the available physical infrastructure since different groups of students can be scheduled to be at the university for the face-to-face sessions at different times. The goal of the model is to tap into all technologies available in the environment of the learner to facilitate flexible and personalised teaching and learning rather than limiting learning to the physical confines of the traditional classroom.

The human resource problem is addressed through continuous retooling of lecturers to become digital practitioners, digital leaders and digital stewards. A digital practitioner refers to a lecturer that adopts technology in their teaching and learning practice through developing confidence in their attitude to Technology Enhanced Learning (TEL), designing learning activities to suit students’ needs using TEL as appropriate, ability to use TEL tools to suit their (lecturers’) needs and managing the blurring boundaries between private and work time as well as access to relevant hardware, software and human resources. A digital leader is a leader capable of leading change through use of technology/digital tools such as social media. Given the current trend with social media, leaders do not have a choice in joining the online conversation and, more importantly, taking responsibility for the actions and education of future leaders (Ahlquist 2014:57–58). In addition, leaders have a responsibility to help students see and use social media as a tool that educates, strengthens commitments, and contributes to social change. On the other hand, digital stewards are persons who have not only adopted digital technology in their practice but are also promoting its use within their institutions. They are people with enough experience of the workings of a community to understand its technology needs,
and enough experience with or interest in technology to take leadership in addressing those needs (Wenger, White, and Smith 2009 in Ahlquist 2014:57–58). To successfully implement UTAMU’s blended-learning model, there is a need to have digital leaders that are capable of leading change through use of technology/digital tools and helping students see and use social media as a tool that educates, strengthens commitments, and contributes to social change. There is also a need for digital stewards to promote use of TEL among its faculty and digital practicing lecturers that have the right attitudes, skill sets, practices and tools.

Tshabalala et al. (2014:101) noted that the blended-learning approach also offers several advantages to academic staff namely; accessibility of information, universal connectivity, which enables the formation of communities of inquiry; and innovative teaching strategies.

On the students’ side, the flexibility provided by the model enables working students to concurrently pursue further studies alongside their full-time jobs. Use of technology in teaching and learning also nurtures students to see and use technological tools for serious undertakings other than the old perception of leisure and entertainment which will help them develop digital leadership skills required in the digital world which will make them more relevant and competitive regionally and globally.

CRITICAL SUCCESS FACTORS FOR IMPLEMENTATION

In order to successfully implement blended-learning, certain factors must be in place namely; relevant policies, requisite resources and careful planning or scheduling. A description of what each of these factors should entail and why they are necessary is given below;

Policy

Successful adoption of blended-learning requires clear goals, and careful planning and support, to avoid the risk of wasting scarce resources, frustrating users, and generating poor learning outcomes. This systematic process can be guided by a blended-learning policy that specifies required policy actions and the relevant actors. The blended-learning policy will enable the university/institution to substantially gain from the advantages of using blended-learning and the investment made. The policy will also play a crucial role in guiding the change required in institutional as well as individual staff practices that is crucial for the success of blended-learning. UTAMU’s blended-learning policy was developed in the early stages of the formation of the university in preparation for application for the License from the National Council for Higher Education (NCHE). The early development of the blended-learning policy was vital given that from the onset, UTAMU was established to provide flexible and tailor-made learning for a 21st student through the blended-learning delivery model.

Resources

Other than policy, successful implementation of blended-learning requires putting in place key resources particularly the required technological infrastructure and human resources. At the inception of the university, UTAMU invested heavily in technological infrastructure; both hardware and software, as well as hiring of academic staff with the necessary qualifications,
skills and experience; as well as continuous training. In terms of hardware and software, UTAMU invested in the development of a robust LMS using the open source MOODLE framework, bought and installed high performance local servers and outsourced an internationally known web host for hosting the LMS. In addition, UTAMU invested heavily in capacity building of its staff through continuous refresher trainings on pedagogy as well as the use of TEL during every end-of-semester holidays. The goal of the continuous training is to nurture digital leaders, digital practitioners and digital stewards among teaching staff. For successful implementation of blended-learning, all three categories of digital compliant lecturers are needed to effectively practice TEL, nurture students to see and use technological tools for serious undertakings, hence develop digital leadership skills and promote the use of TEL among other faculty.

Planning/scheduling

To maintain the flexible delivery, blended-learning is supposed to provide, there is a need for careful planning/scheduling of different learning phases and activities namely; face-to-face engagements, self-paced learning phases and time for assessments. These should be known by both the students and lecturers before every beginning of semester to facilitate planning. In UTAMU, the teaching of Master’s and a Postgraduate Diploma in M&E has been split into five main phases namely; face-to-face first block release, self-paced learning first phase, face-to-face second block release, self-paced learning second phase, and examination. The five phases are planned within 15 weeks of the semester.

CONCLUSIONS AND SUGGESTIONS

Mansilla and Duraising (2007:219) regard interdisciplinary understanding as the capacity to integrate knowledge and modes of thinking in two or more disciplines or established areas of expertise to produce a cognitive advancement – such as explaining a phenomenon, solving a problem, or creating a product – in ways that would have been impossible or unlikely through single disciplinary means. As Collins (2001:162) concluded, great institutions respond with “thoughtfulness and creativity, driven by a compulsion to turn unrealized potential into results; mediocre companies react and lurch about, motivated by fear of being left behind”. Tarsilla (2014:6) gives us lessons learned on what has worked and not worked in ECD in Africa, with a conclusion that short-term training initiatives targeting individuals are no longer effective unless combined with other activities as part of systemic processes. Avoiding the content of evaluation; training modules being more theoretical than practical favour the dominance of long-term academic programmes.

NOTES

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