A Future Scenario of e-Learning for Primary Colleges of Education in Zambia

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Abstract

Charles Lwanga College of Education (CLCE) is a college for primary certificate and diploma students. The college is planning to offer a new diploma course through open and distance learning as from 2010. Since the development of the course has just started, they saw an opportunity to use e-learning as one of the methods. The college has started very enthusiastically and has developed an e-learning strategy, after which a training for all lecturers was organized about 'how to start e-learning'.

A big challenge when introducing e-learning relates to the statement "you don't know what you don't know". When you have never seen or experienced e-learning, it is hard to imagine what the benefits and the challenges are. At Charles Lwanga College of Education this challenge was addressed by applying a scenario-based approach. During a workshop the lecturers explored a variety of e-learning and web2.O tools, like Moodle, blogs, wikis, skype and discussion forums. Later on, they were asked to write up stories of fictional students using e-learning in 2012.

The lecturers used profiles of students with various learning styles and interests as model for the different scenarios. In one scenario a student who is very experimental is self-discovering the online learning environment, starts up new discussions and provides peer support to the less technological oriented student. In another scenario a student who needs more guidance is being guided through the web2.0 tools in how to use the tool through online tutorial and peer support.

In this article an analysis is made of the challenges and successes of using this scenario-based approach to help the college to plan towards integrating e-learning in the curriculum. Persistence in self-discovery of e-learning tools and thinking innovatively and creatively, were identified as key competencies for lecturers to be successful in starting to use e-learning.

The challenge will be how to train up lecturers and students into the identified competencies. The recommendations made are that the competencies could be used in future as criteria for selecting staff to become involved in the e-learning programme. They should be the 'motivators' at colleges where e-learning is just initiated, whether it is their own college or a college with whom they work together. At the same time these competencies should be built up in the curriculum, to enable the students to 'learn how to e-learn'.

Introduction

This is part of a fictional story created by lecturers of Charles Lwanga College of Education (CLCE) in a training on how to start e-learning. Different stories were written by lecturers of CLCE during a workshop in which they started to explore what e-learning is. The stories are the fundaments for a scenario based approach, in which students with different backgrounds, interests and levels of understanding in 2012 are supposed to learn through the principles of e-learning; 'just-in-time' and 'just-for-you'.

' I am Mweene, a distance student at CLCE. I will tell you about my experiences of using CLCE's online learning environment. When I opened the homepage, I found some features useful for my studies from a distance. The most appealing ones include the use of discussion forums and learning journals. After my tutors have oriented me to discussion forums, I am now able to participate in a wide range of them with tutors and my fellow students. Whenever I am studying, I take note of points difficult to understand and later log on to the online learning environment, then open a discussion forum with other students or tutors, so that I can get clarification. This also helps me build confidence in my studies as I am now able to assist friends with the difficulties they encounter in their studies. John really depended on my instructions to help him use the discussion forum feature' .

Background of e-learning in Zambia

The Ministry of Education (MoE) in Zambia through the Directorates of Open and Distance Education (DODE), and Teacher Education and Specialised Services (TESS) in collaboration with the stakeholders such as the University of Zambia (UNZA) and VVOB is investing in e-learning to increase access to teacher training and provide better quality education. For this a strategic plan for e-learning development in Zambia is near completion, the country will host the 2010 Africa e-learning conference and guidelines for quality Open and Distance (e)Learning are being developed. The importance of e-learning cannot be overemphasized because it pervades and will transform all teaching and learning- be it campus-based, distributed, or distance education. The real potential of e-learning is to enhance traditional values of higher education by fostering communities of learners through integration of research into the curriculum (Garrison & Anderson, 2003).

CLCE, situated in a rural area of Southern province of Zambia, has taken the first step among the primary colleges to integrate interactive methods in enhancing access and quality in teacher training through e-learning.

Purpose of the study

The purpose of the study is to discover through a scenario based approach how quality and accessibility to teacher education can be enhanced in Zambian colleges of education. Zambia is far from reaching the Millennium Development Goal on Education and the Education for All targets and is in desperate need of educating masses of qualified teachers. CLCE hopes to educate more teachers and bring them to higher levels through e-learning. The college is representative of all colleges of education in the country. The lessons learnt and challenges from the scenarios at CLCE can be adapted to other colleges. Hence, this study will contribute towards achieving the countries needs for more and higher qualified teachers.

Methodology

The structure of introducing e-learning to CLCE was phased as follows:
1. Presentation on 'what is e-learning?'
2. Establish participants needs on what to learn about e-learning.
3. Hands-on Training 'Introduction to e-learning'.
4. Developing scenarios of the future of e-learning for students in 2012.

The first presentation was focused on the following essential questions, in order to reveal the characteristics and perceptions of the college lecturers on blended interactive methodologies:

• Why would you like to introduce e-learning at the college?

• Which aspects of e-learning are you familiar with?

• What would you like to see enhanced in Colleges of Education in Zambia? How?

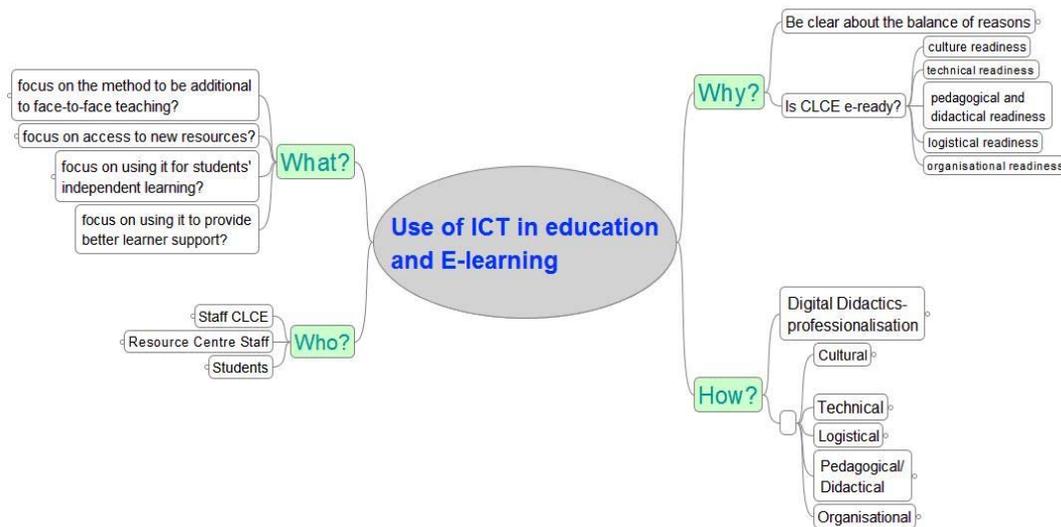The mindmap gives an overview of how the questions were addressed:

Figure 1 Mind map: Use of ICT in Education and e-learning

After the first presentation on 'what is e-learning?' a five day training was conducted for all the lecturers at CLCE. The lecturers expressed two main needs:
1. To understand what e-learning could look like in future in the context of a Zambian college of eduation.
2. To get hands-on experience on how to use e-learning tools and methods.

Hence, the training was set up so lecturers could experience e-learning hands-on through a scenario-based approach.

Scenario-based learning is learning that is embedded in the context, within which learners live and work. It is based on the concept of situated cognition, which is the idea that knowledge cannot be developed and fully understood independent of its context (Kindley, 2002). For the lecturers at CLCE it is important to consider the challenges of accessibility to computer and

internet facilities, as well as looking ahead of what is likely to be available in the near future, so they are ready for it.

Lecturers expressed not to have a clear picture on what e-learning should or could look like and how it can enhance the quality of learning. Scenario-based learning takes the form of a storyline in which learners are required to assume a key role (Schank & Cleary, 1995). In designing the training different profiles of students were provided in order to develop scenarios of the future of e-learning at CLCE. Hands-on activities, a reader and practical examples of various Web2.0 tools and e-learning platforms were given to ensure lecturers would experience the scenarios they were describing through guided discovery. The participants in groups could select which of the blended methods and tools they wanted to explore (as shown in Figure 2). They then chose one profile of a student from 8 profiles provided to them (some examples of the profiles can be found in Figure 3). By exploring for example the 'blog' they then thought of how the selected student would be using the blog in 2012 and wrote a story about it.
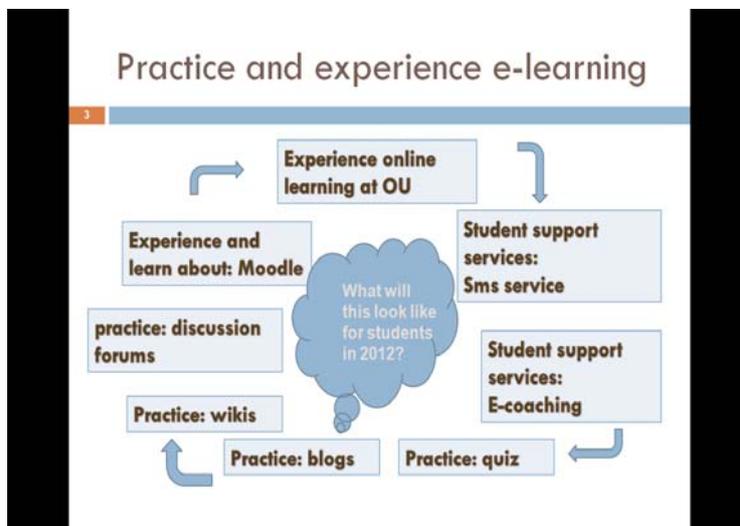

Figure 2 blended methods and tools for e-learning

Figure 3 Profiles of students

After different groups of lecturers wrote their stories, they shared and improved on their stories through using the 'world cafe' method. The 'world cafe' is 'a *conversational process* based on a set of *integrated design principles* that reveal a deeper *living network pattern* through which we co-evolve our collective future' (from: http://www.theworldcafe.com/what.htm) . The different groups left one host at the table to explain their story, and the other members of the group listened and contributed to the stories of other groups.

Philosophy of e-learning

Since e-learning is an open system, the goal of quality e-learning is to blend diversity and cohesiveness into a dynamic and intellectually challenging 'learning ecology'. It has been realized worldwide that electronic communications technologies have the capacity to extend interaction over time and distance. ICTs have advanced more than our understanding of how to use the technology in an educational setting. The Internet is at the core of the e-learning transformation (Garrison & Anderson, 2003).

Institutions in Africa cannot afford to lag behind, thus, they should position themselves in terms of the context in which learning takes place. Zambia is a large country where communities are widely spread. In-service students (novice teachers) often work in rural areas. Not only would it be very useful to be able to study from any time or any place (or at least any place near enough to Internet facilities), but also to be able to communicate over distances to learn from other professionals. However, so far e-learning is a very new concept in Zambian education. Often e-learning is considered to be a cheap way of providing education to masses of students, which could be used to generate 'easy money'. The emerging reality is that e-learning can help address inherent deficiencies in teacher education related to over-reliance on lectures and information dissemination in our current system. The emphasis of introducing e-learning into Zambian institutions should be on the quality of learning experiences.

CLCE developed a vision on e-learning that focuses on achieving high quality e-learning. It can be summarized as follows:
- By 2012 CLCE aims at training a student teacher using technology-mediated learning within the resources in a flexible manner through a personal route, which enhances constructivism within the classroom and social setting.
- CLCE aims at producing teachers who are competent, committed and confident in studying independently with the use of ICT and other means of modern technology to enhance e-learning. And who are willing to broaden their vision and professionalism with a view to facing the modern challenges and demands of the contemporary society.
- Content will be the same (or richer) as that one for full-time students, the difference will be in the mode of delivery.
- They will acquire skills in independent learning, equally learners will have been empowered to study independently.
- Full participation of students through interactive materials to be prepared.
- The format to be adopted will be a module type. Of course there will be a period for face to face contact with lecturers once in a while.

Outcomes of the scenario-based training

Seven groups of lecturers created scenarios. The following example is selected to give an idea on what the lecturers came up with.

Choolwe

I am Choolwe an online student at Charles Lwanga College of Education e-learning centre. I am a 26 year old teacher at a rural school in Mapanza, Choma district. Currently I am studying for my Diploma at Charles Lwanga College as a distance student. Previously I did not have computer skills and knowledge. I am glad that now I am able to browse and log in some websites to get useful information to help me answer the assignments through the help of lecturers at Charles Lwanga College. I have learned a lot since coming on the course. I have had some brilliant lecturers who explain things clearly and well.

Blog
I use the blog to share my views and opinions with other students and other bloggers for learning purposes. I also use the blog to get quick feedback from my lecturers on the assignments and tasks.

Discussion Forum
I use a discussion forum in sites on the internet and in the college website. In moodle I use it to discuss with my lecturers. Discussion forums are great help since the lecturers give us a deadline by which we are required to contribute to the discussions. This increases our motivation and whets our appetite to practice more.

Quiz
I like using the online quiz since there is a lot of new information and almost all disciplines of learning are represented. New information can be uploaded on the internet. It can also be used to cover a large amount of content. I also use quizzes to answer assignments questions. For example in a music assignment there was a question where we were requested to compose a lullaby. I used a quiz from BBC to define a lullaby since I did not know what it was. This took me a few minutes compared to the amount of time it would have taken me had I used a library.

An analysis was made of which added values of e-learning compared to more traditional forms of education were mostly addressed by the lecturers in their stories. They addressed the following values of e-learning:

- easy communication with the tutor and with other students
- studying can be done any time and any place
- opportunities for reflection through blogs and discussion forums
- easier and closer access to resources for lesson planning
- content can be created by students themselves
- online learning can be done in combination with regular classes.

These characteristics can be used to strengthen the quality of Open and Distance e-Learning (ODeL) materials by CLCE as well as other colleges of education to embed in their new ODeL teacher education programmes.

Training for lecturers when starting e-learning

From the stories a lot could be learned about how to train up lecturers in understanding e-learning. It has been a challenge to use the stories as a guide to steps that need to be taken in the implementation of e-learning. It was especially difficult to create the stories because it was not clear from the start for which ODeL programme at the college e-learning would be developed. If this scenario-based approach is used in future, it is important to have a clear perspective on the curriculum in which it is to be implemented.

Quite a few lecturers learned very quickly how to use blogs, wikis and discussion forums as innovative methods in their courses. For example, lecturers would come up with stories in which constructivist methods are used in which students contribute to the tools themselves. Especially working in and adding to the Wikipedia was a very good exercise for understanding what 'constructivism' means.

Some lecturers questioned the method of self discovery in the workshop. They preferred to get a step by step explanation of the tools. This contradicts the philosophy of e-learning where the learner is supposed to create their own meaning. There is some work to be done to change attitudes from depending on the teacher as a source of knowledge towards being responsible for your own learning.

It was observed that some lecturers used the e-learning tools in a very innovative way, whereas others used the tools in a more traditional way. For example, this was observed in the use of the wiki. For some lecturers, the purpose of this tool was mainly valued for working on definitions, which seems to indicate a value for rote learning, rather than promotion of critical thinking. Others saw the potential of the wiki to be used by students to develop their own content.

When asked in the evaluation rounds what lecturers thought of the practical exercises in which they experimented, they noted that one should have quite a bit of perseverance. Patience is needed and the will to discover how a tool works. Other than that they were commenting on each others' creativity and willingness to be innovative. By seeing examples of how others have been innovative in the world café, it was easier to come up with future scenarios. It also showed different interests from different lecturers; e.g some became 'skype fans', others loved the 'blog' and others saw themselves putting their lessons and activities in Moodle.

In the five day training a model was presented to the lecturers to suggest a strategy for implementation of e-learning at CLCE (figure 4). This model was developed by the distance learning committee of CLCE. The idea was to create a selected group of eight (8) motivated lecturers to conduct small experiments with different e-learning tools, for example learning how to use blogs, forums etcetera.
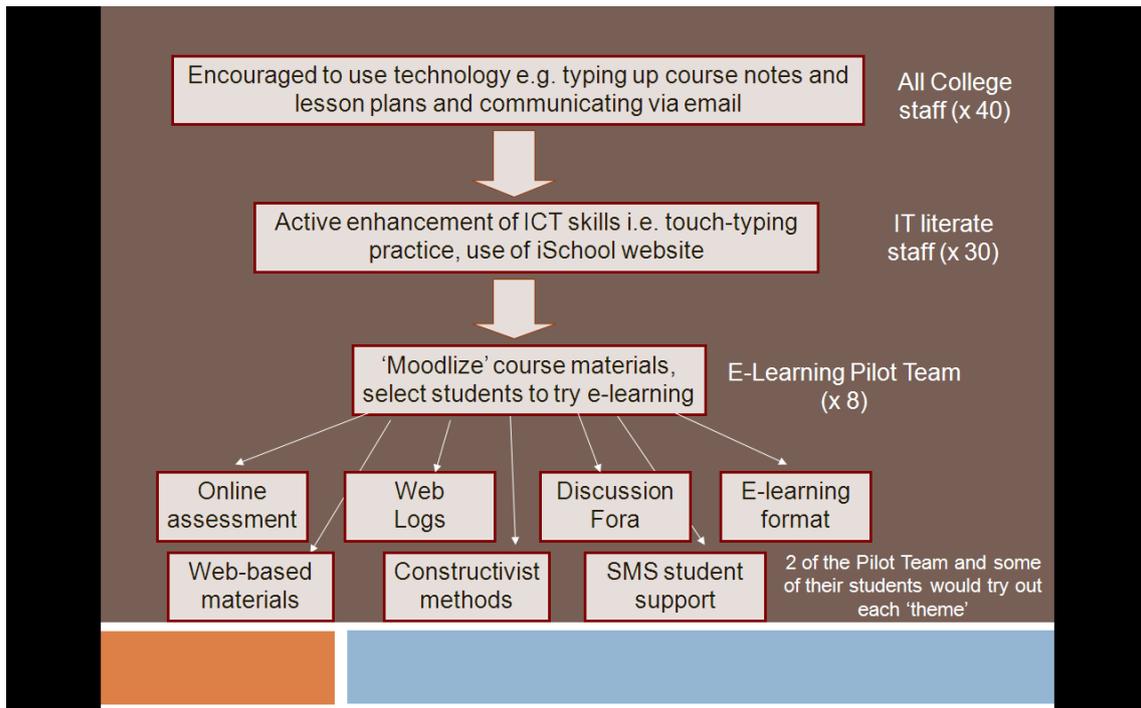
Figure 4 Cascading e-learning at CLCE

Remarkably when this model was introduced in the training all the lecturers were so motivated about the potentials of e-learning, that the idea of a small group was debated. Some lecturers felt they might be left out and everyone seemed to want to be involved in experimenting. So it was explained that anyone motivated enough would be given an opportunity to experiment small scale e-learning pilots.

Conclusions

CLCE has initiated a new movement in Zambian education, by taking e-learning seriously and investing time to train up lecturers into the basic principles of e-learning.

By using the scenario-based approach lecturers not only have a clear perspective on what e-learning could look like in future, but also they learned how to use the different e-learning tools themselves. Now that they have experienced the different tools, they are able to take the next step and start small scale experiments with students. Besides that, the college is now motivated to start material production for the modules that will need to be developed. By having gained experiences with blended methods and tools during the workshop, the modules can now become much richer.

The main lessons learnt for future training at other colleges of education that came out of this study are:

- Lecturers experimenting with the different e-learning tools need to have or to be trained towards the following competencies: to be an innovative, critical thinker, a problem-solver, who is persistent and creative.

- The stories give a good idea of which added values are appreciated by lecturers, indicating a willingness to change towards using more innovative methods.
- The stories indicate lecturers have various preferences for the tools they consider valuable for their courses. To ensure motivation, lecturers need to be given the opportunity to experiment with the tool of their preference.
- Lecturers are at different levels of using the tools, varying from using them in a traditional way towards very innovative use of the tools. The college needs to decide whether it is wise to first take simple steps and allow the use of the tools in a traditional way, so that nobody is left behind. Alternatively, they may choose to focus on the 'innovators' to lead the way.
- The methods of the training in which hands-on activities were conducted worked well, because lecturers demonstrated a clear understanding of some of the educational principles of e-learning, such as constructivism. At the same time lecturers expressed a need for more guided practice, which should now be arranged at college level.
- When organizing a training using the scenario based approach, it is important for the college to have decided on the beneficiaries of the scenario (which student group is targeted?) and for which programme the scenario is being developed.

The way forward:

Currently there are two main 'ways forward' for the college:
  (i) More practice – to continue working using different methods through 'self discovery' and open opportunities for all lecturers to experiment with small groups of students.
  (ii) Material production – to start producing teaching/learning materials in e-learning format.

CLCE is embedding e-learning in the college-based Continuous Professional Development, so that everyone has a chance to learn how to use and implement e-learning.

To be able to move forward the college needs to be given recognition, guidelines and support from MoE, UNZA and the cooperating partners. CLCE needs to promote the model they are starting and lobby for support from the different stakeholders.

Other primary colleges of education in Zambia can learn from and work together with CLCE. Especially the lessons learnt on how to train up lecturers to learn about e-learning, should be an integral part of the implementation strategy of each college.

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