

November – 2007

Research Notes

Lessons from an International e-Learning Project

Paul Breen

Holborn College, London, UK

Abstract

This paper offers a critical examination of an e-learning project in the context of a Distance Education training program delivered to teacher trainers by an external university in Rwanda. In examining the successes and failures of the project, it uses a framework based on ideas promulgated by Moore (1995) and strives to provide guidance and reference for future projects in this field.

Introduction

Moore (1995) describes how, in May 1995, *The American Center for the Study of Distance Education* hosted the *Third Distance Education Research Symposium Conference*, in which a group of researchers were asked to consider “the effect of research on improving the quality of distance education practice” (p. 1). In setting out a framework for analysis, they identified “four key research areas: course design, instruction, policy and administration, and learners and learning” (p. 4).

By Moore’s (1995) own admission, there is a considerable degree of overlap within these four key research areas, but they serve to offer structure in a field where so much research is autonomous and unconnected. Although all online learning and development projects should be implemented on a case-by-case basis, there is a clear need for comparative studies. This is advocated in the work of Gourley (2004), and Keniston (2001) who in writing about the Indian context, notes that India abounds with pilot projects that rarely form part of any larger plan and which include little thought or consideration of how they might be replicated on a larger scale beyond the boundaries of the individual projects.

Skepticism at the Outset

Unfortunately, what Keniston (2001) says about India is not limited to that region alone, and in the same article, he goes on to make another significant point, specifically that few of these projects are analyzed independently and that, invariably, they become success stories, as if in competition against one another.

This is a point echoed by Asmal (2004) who speaks about the need to avoid the “uncritical introduction and adoption of distance education and the associated new technologies” (p. 37).

Asmal's view is reiterated by Davis (2004) who describes many of these projects as being "doomed to succeed" (p. 8) and, echoing Keniston (2001), warns against any false sense of accomplishment in having re-invented the online learning wheel.

In the African context, in particular, there is a great deal of skepticism about the introduction of so-called 'agenda free' assistance from western agencies or educators who appear to 'brand' technology as the panacea for all the continent's educational ailments. This is a view strongly expressed by Asmal (2004) and many other speakers at the *All Africa Ministers' Conference on Distance Education* in 2004. Among the critical, but constructive, voices at the conference was Gourley (2004) who questioned, whether or not, either information or education can be seen as value free.

Asmal (2004) spoke of Africa having a history of being used as a "laboratory for educational experiments for external agencies" (p. 37). Africa's history, stretching down from the Islamic north to the sub-Saharan south, has left the continent skeptical of the intentions of outsiders and this is a feeling that pervades much of the literature. One detailed example of this is found in Taylor's seminal (1995) paper on education in South Africa, in which there is a description of events before and after the colonization of the sub-Saharan region and details of the colonial influence upon African education. Taylor argues that the great age-old African tradition of cooperative learning (which is now ironically fashionable in western pedagogy) was almost irreparably destroyed by the influence of missionary and colonial education. He asserts that this is why a current discrepancy exists "between African culture, which may be seen as defining some form of cooperative learning, and the present school culture" (p. 240).

From reading Taylor's article, one can get a clear sense of why Africans might be cynical about western intentions and, indeed, see within them echoes of a 'we broke it, but we're coming back to fix it' attitude.

An African e-Learning Venture

It was against this backdrop of skepticism and historical abuse of the term 'agenda-free assistance' that an Italian university recently completed the provision of a teacher education program to Rwandan teacher trainers by means of distance education through a blended learning approach. This project, organized by a university in Rome, provided a fourth generation distance education training course for postgraduate students at a technical university in the Rwandan city of Kibungo. The project began as an investigation and an experiment into the feasibility of cross-continent collaboration and gradually evolved into a full-scale distance education project with the critical aspiration of mutual partnership. The original aim was that both universities would be involved in the design and implementation of the training program so that within a short space of time, Rwandans could manage these courses independently in the future.

The motives of the project were certainly pedagogic rather than financial or culturally imperialistic. They were also driven by a desire to research and prove the effectiveness of constructivism and the blended learning approach. Moore (2002) might argue that this position is flawed from the outset, however. This is because of his assertion that constructivism is largely a philosophical position rather than an empirically supported approach, and less developed than the theories of Mezirow (1991) who coined a 'transformation' theory of five interacting contexts which suggests that people actually learn through a combination of learning styles, from behaviorist right through to constructive, rather than in any one absolutist manner.

Despite this, however, it is possible to analyze the effectiveness of the blended learning approach, which can be basically defined as the combination of multiple approaches to pedagogy or teaching, which in this case was a combination of face-to-face teaching with online distance education delivered through the medium of a Virtual Learning Environment. It should also be added that blended learning in itself is not new because it can already be seen in the work of Volunteer Services Overseas (VSO), The British Council, and UNESCO, who have all used blended learning approaches in their overseas teaching programs in the developing world. It is also commonly used in cyber schools and universities in developing countries throughout the world. Some prime examples of this are the Cyber University of North Korea described by Im and Lee (2003) and the University of Botswana's blended learning and online programs detailed by Giannini-Gachago and Seleka (2005).

The reason for making the above points is to clarify exactly what place this project has in the broader field of distance education in the African and the broader global context. The manner of its delivery is neither revolutionary nor powerfully innovative, but what makes it interesting is that the organizers set out with a specific goal of delivering the program in such a way that it could be autonomously replicated by the Rwandans themselves in the future. In setting out this goal, they deemed their project to be 'agenda-free assistance' in the purest form of the term but actually, in doing so, unwittingly and unintentionally added themselves to the list of projects defined by Keniston (2001) and Davis (2006). The reason for my saying this is that unfortunately projects that call themselves 'agenda-free' at the outset feel almost duty-bound to portray themselves in the most glowing light possible upon completion of their task. Few projects set out with the aim of being doomed to succeed but usually end up unwilling to be analyzed and open to comparative study. Indeed, it is easier to shelve them away safely in a box labeled 'successfully completed.'

Using Moore's Framework of Analysis

Having pointed out that the main weakness of this project was in its trying to define itself as 'agenda-free,' it is important to stress that there were many strong points in the delivery of the course and the contribution that it can make to the fields of electronic learning and distance education. Perhaps the main contribution that it can make is to offer answers to those voices in the African context and the broader literature who have asked probing questions about western motives and benefits. These include a number of non-governmental organizations such as UNESCO and the World Development Bank who repeatedly stress the view that technology will only provide viable long-term solutions for the problems of the developing world if foresight is used effectively in its implementation.

In my opinion, the best way to ensure that this foresight takes place is for projects such as this to be open and accountable from the outset, and to make use of comparative studies and research to analyze their eventual contribution to the field. For this reason, I have used Moore's (1995) criteria to evaluate the successes, failures, and lessons of this project.

Course Design

From the outset, this teacher training project cited key objectives as being that participants should "acquire the expertise which should enable trainees to manage their self-training process," "acquire theoretical notions on the main training models, particularly on cooperative learning," and "acquire project design and management skills for a training course along all its phases." These objectives demonstrate that, in pedagogic terms, this was a course based around the

acquisition needs of its participants, designed by an external agency giving to rather than taking away from the African continent, and avoiding the traditional tendency of western agencies to manage rather than to share. In order to increase the chances of the Rwandan teacher trainers meeting these objectives, the project used blended cooperative learning methodology as described in the literature of Harasim, Hiltz, Teles, and Turoff (1995), Salmon (1998; 2000), Valiathan (2002), and Gonzalez (2004). In practical terms, this entailed the combination of an online learning platform, with a set of formal academic lessons.

The training course ran for 35 weeks, for a total of approximately 210 hours. This was broken down into three hours per week of formal academic training in the classroom, provided by lecturers from the Rwandan university, and then 105 hours of more flexible, self-paced online training managed by the online tutors from the Italian university. In the formal classroom-based lessons, the lecturer explained theoretical and methodological aspects of the course whilst online activities, supported by the project's learning platform provided deeper insight into those theories explained during formal class work and provided opportunities for interaction and collaboration among participants.

This course, taught half in distance mode and half in real time, had echoes of the 'deep learning' approach referred to in the literature of Toohey (1999), and Motteram, (2001). It needed to possess such characteristics because it was being delivered to 15 adult Rwandese teacher trainers who (*in theory*) would autonomously deliver this course to other teachers in the future. The first batch of aspiring course managers of the future ranged in age from early 20s to middle 30s, unanimously described their ethnic background as black African and were a mix of both genders, although predominantly male.

Of course, in order to deliver the online aspect of the program, a suitable learning platform was required. Originally, the designers opted for a future learning platform named *Synergia*, a software system that combines an asynchronous component (BSCL) with a synchronous component named *MapTool*. This was a satisfactory choice and would have served as a good medium for delivering the course. The designers, however, then decided on the more mainstream and internationally recognized *Moodle* learning platform which is an acronym for Modular Object Oriented Dynamic Learning Environment, detailed on the website <http://moodle.org>.

Part of the reason *Moodle* was chosen was that designers wanted to give the course international standing so that it looked as professional and contemporary as possible in the eyes of their Rwandan partners. It is also a flexible platform, which allows teachers to put a wide range of materials online, including lesson notes, PowerPoint presentations, discussion forums, and bulletin boards. In this way, it serves as a forum for interactivity for both students and teachers, and allows students to work at the course in their own time and pace while keeping to a broader schedule, as detailed in Valiathan (2002).

Aside from the pacing and presentation considerations, *Moodle* also allows tutors to build-up a wide and varied range of complimentary technologies around the core technology of the virtual learning environment (VLE) as advocated by Collis and Moonen (2001). It allows students themselves to build-up an online library of resources over time, which was one of the key aims of the venture, and stated in the project literature as the desire "to set up a shared virtual library to smooth and reduce the barriers (economic, geographical and technological) to knowledge access for students and lecturers of both universities."

Instruction

The second key area of Moore's framework is the process of instruction, which is where the effectiveness of the course design is tested in practical terms. However, it is important to keep in mind critical voices such as Davis (2004) who writes that "building the infrastructure for online learning requires that many factors be considered, so it is difficult to provide a straightforward checklist or recipe to follow" (§ 3). Davis goes on to cite Lu (2002), writing about gases, who says that "scientists often classify systems as 'ideal' versus 'non ideal', (more commonly understood as 'real')" and "if we apply this concept (*to the project in hand*) we can define the ideal and then look at the deviations from ideality that manifest themselves in the real" (§ 4).

Davis (2004) goes on to say that "an understanding of the technological background of the intended students is crucial" (§ 9) and thankfully all of the participants in the project had (or at least claimed to have) prior experience of using computers so they were able, in his words, to "participate equally and fully in the learning experience" (§ 9). In order to facilitate ease of use and engagement and to build-up comfort in terms of access and motivation, the program started off at a slow pace with introductions from the online tutors and an invitation to students to explore the learning platform, making sure that all of their peers had passwords and access. This tactic of encouraging the students to work together and consider the needs of their peers created a constructivist sense of teamwork from the outset in the hope that it would make cooperation "a core element of learning" as espoused by Taylor (1995., p. 252).

However, as in Davis' (2004) writings on 'ideal' and 'real' systems, things did not run quite as smoothly as had been planned in theory. In an email at the start of March 2006, reporting on the progress of the course, one of the five online tutors wrote:

"The project is just starting in these days. We have problems in making the students enter the platform. They probably have no confidence with technologies and the Internet connection is not available every day. That's why they have started attending lessons in the classroom with their Rwandese teachers from UNATEK but haven't as yet started collaborating online with us. Our role is to coordinate and manage the online activities which as I've said should start in a while . . .

Regarding questions about the socialisation phase I think we can answer these properly in a few weeks . . . when students really start to use the platform we can say something about their socialisation with the platform and with other students."

From the students' perspective, one of the problems seemed to be a lack of confidence and fear of making mistakes. They appeared to be apprehensive about using the technology and bashful about sharing their ideas in such a public space. Therefore, they had to be coaxed into using the platform and tutors did this with a gentle form of persuasion through a friendly approach and one that built familiarity at their own pace. This was done through using what Salmon (1998; 2000) describes as the 'online socialisation' phase where a sense of community is built-up amongst the participants so that they progress to the stages of 'information exchange' and 'knowledge construction' where participants give information relevant to the course to each other and where course related group discussions occur and the interaction becomes more collaborative.

At these stages of information exchange and knowledge construction, things became more demanding for the students and there was actually a lower instance of responses than there had been during the first two phases. Students found it difficult to 'get to grips' with the idea of collaborative learning and doing things for and by themselves; so unfortunately they got trapped

in the third and fourth stages without ever really progressing to the fifth stage of Salmon's (1998; 2000) framework, namely the 'development' stage where they are able to work independently, with the aim of replicating the course autonomously in the future. Students never quite came to terms with the self management aspect because, in the perception of the online tutors whom I interviewed in the process of writing this article, a period of 35 weeks, or 210 hours, was too short to radically alter the mindset of adult learners who had been trained in a system diametrically opposed to the one they were trying to introduce.

Yet that is not to say that the Instruction phase was a failure. On the contrary, it brought students up to a level where they would be able to progress further with the right time and resources. Their only error was in assuming that things would happen much faster than they did in reality, which shows the importance of using comparative studies and sound research to give course designers a better sense of foresight. In essence, the Rwandan teacher trainers learned a great deal from this course, especially in learning to collaborate with their western counterparts. In the end, actually the Rwandans were the ones who wanted the western agency to remain longer than intended, rather than the opposite scenario which many critics such as Asmal (2004) have complained about in the past.

Policy and Administration

Butcher (2004), in writing about the financial logic of distance education, argues that ideological arguments are made for open learning, whilst economic ones are commonly used to justify distance education projects. This is true, especially in the African context where there is little room for economic spillage. This, however, does not mean that distance education programs should be put in the hands of economists rather than educators. Badat (2004) has suggested that problems arise when developments are, or seem to be, driven by technologists and business interests rather than by educators. This type of scenario generally places corporate representatives at the top of the hierarchical pyramid and teachers in a position of struggle at the bottom in what White (2003) terms a 'bifurcated system' in a quote taken from Warschauer (2000).

Of course one may argue that, in open learning, teachers often find themselves caught in a position of struggle at the bottom of the institutional ladder, but the problem that Badat and White are trying to highlight is one of image presentation. As Davis (2004) has said, many of these projects are 'doomed to succeed' and if that is the case then it can be costly for those who have to bear the consequences of their failures.

Certainly the project in this paper, while not doomed to succeed, did have elements of people at the top feeding off the hard work of those at the bottom. The good thing about this project, however, was that there was an accreditation procedure in place, which meant that there was criteria that had to be met at each stage of the process, which reduced the chances of teachers being left isolated and working in a vacuum. There was a good administration system in place, though it did depend on a great deal of excess work by the online tutors who bore the brunt of the workload. The problem is that, from my qualitative observations, the higher one goes up these institutional ladders there is less chance of people putting in the same workload for nothing. Therefore, financially these projects cannot survive in the long term because people will not work for nothing forever, and even if the western agency can find a steady stream of willing recruits, much of the expertise and quality will be lost as a direct consequence.

Yet, it is important to stress that even small scale projects, such as this one, make a vital contribution because, in the words of Namibia's Policy Framework for Education (2004), "as we

develop our own ideas and technologies we become less dependent on imported innovations and the conditions that often accompany them.” The problem though is that the timeframe needed for development may be longer than educators can afford to offer, which means that it gives rise to these projects being funded and driven by economists rather than educators, in the future.

Learners and Learning

In Moore’s (1995) framework this section is used to address the success of the project in the whole context of the learning process, not just in terms of the learners in a particular venture, but also the broader context of distance education learners as a whole. Having already explained how the learners in this project did not quite reach the desired level, due to a lack of time, I will therefore focus on how this project can contribute to the broader field of distance education as a whole, reviewing areas that I have touched on before, such as economics and the African/developing society context. The reason for focusing specifically on learning at this stage is that this particular project placed the learning experience at its core and used that as the fundamental barometer to measure its own successes and failures. Thus, firstly, it is important to ask how projects such as this can fund themselves in such a way to provide an enriching learning experience for students. Perhaps, the answer is by relying heavily on sponsorship and by integrating the project into existing areas of work within the western agency so that it is being automatically financed. The Italian university did this by working on this project in conjunction with others, so that it was benefiting from a run-off of spare funds and time within the Faculty of the Sciences of Communication. A total budget of 39,000€ was spent on the project of which 23,000€ was written off through this process of auto financing. Of course, 16,000€ was spent on set-up costs, so that meant funding had to be gained and this is where the biggest problem lay. Around 16,000€ was gained from funds made available through the university itself, but this was one-off sponsorship that could not be repeated time-and-time again. Still, approximately 40,000 € for a course such as this is relatively inexpensive, in that it works out to 2,500 € per student. In the event of the Rwandans running the course autonomously, these costs would be further reduced, particularly in the area of paying the labour costs of online tutors, and those responsible for course consultancy.

So, if a system can be worked out where the learning process itself is more effective and students reach that fifth key stage in Salmon’s framework, then projects such as this are truly beneficial. Yet, if the project has to close at the end of one session because of financial problems, the trainees will not actually have achieved their goals, will be unable to replicate the course successfully, and will not really have gained too much from it.

Despite the problem of funding, this project does offer evidence that it is possible for western agencies to establish projects that are initially based on partnership and collaboration, and can eventually be passed into a state of total ownership by those developing countries who utilize the benefits of this evolving medium. In saying this, I also agree with the assertions of Asmal (2004), and Butcher (2004), who point out that there is a need to remember that one cannot assume that something which is successful in one context will surely work in another.

Despite their concerns, I believe that it is possible to use a project such as this, to look beyond continental boundaries and consider other developing nations that might benefit from this type of project, such as Bangladesh recently described in an article by Islam and Selim (2006), where the tone was one of slight dejection that online learning is “still a dream for the less developed countries because of poor ICT infrastructure and other socioeconomic reasons ” (§ 16), particularly in more rural areas.

Also, the idea of universities working together in partnership through the medium of online learning platforms is something that could serve as a useful base for forging closer links between the developed and developing worlds, as well as in divided societies. For example, universities in Iraq, Afghanistan, Palestine, and North Korea, are all in need of outside assistance in one way or another. Indeed, all of these countries have recently set-up English learning programs in various universities that may, unfortunately, have great difficulty in attracting qualified instructors to meet their demands. Online learning can solve this and, as in this project, can provide them with the means to manage their own education in the future, through a process of partnership rather than dictation from outside agencies. This is surely a selling point of distance education, and hopefully the long-term profits for the western agencies are pedagogic rather than economic. In that way, fewer will be skeptical of our motives in the future.

References

- Asmal, K. (2004). *Prospects, Possibilities and Perils: Distance education's response to Africa's development needs*. Paper Presented at the 2004 All Africa Ministers Conference on Distance Education, Cape Town, South Africa. Retrieved November 8, 2007 from: http://www.polity.org.za/article.php?a_id=46293
- Badat, S. (2004). *The diversity of higher educational provision: propositions on distance higher education policy and regulation towards equity, access, quality and social and economic responsiveness*. Paper Presented at the 2004 All Africa Ministers Conference on Distance Education, Cape Town, South Africa.
- Butcher, N. (2004). *Financing Distance Education Programmes in African Education: A guide for sound investment*. Paper presented at the 2004 All-Africa Minister's Conference on Open Learning and Distance Education, Cape Town, South Africa.
- Collis, B., & Moonen, J. (2001). *Flexible learning in the digital age*. London: Kogan Page.
- Davis, A. (2004). *Developing an infrastructure for online learning*. T. Anderson & F. Elloumi (Eds.), *Theory and Practice of Online Learning*. Athabasca, AB: AUPress. Retrieved April 7, 2007 from: http://cde.athabascau.ca/online_book/ch4.html
- Giannini-Gachago, D., & Seleka, G. (2005). Experiences with International Online Discussions: Participation patterns of Botswana and American students in an adult education and development course at the University of Botswana. *International Journal of Education and Development using ICT*, 1(2). Retrieved November 7, 2007 from: <http://ijedict.dec.uwi.edu/viewarticle.php?id=42&layout=html>
- Gonzalez, C. (2004). *The role of blended learning in the world of technology. Benchmarks online website*. Retrieved November 7, 2007 from: <http://www.unt.edu/benchmarks/archives/2004/september04/eis.htm>
- Gourley, B. (2004). 'The Digital Divide: Solution or problem.' Paper presented at the 2004 All Africa Ministers Conference on Distance Education. Cape Town, South Africa.
- Harasim, L., Hiltz, S. R., Teles, L., & Turoff, M. (1995). *Learning Networks: A field guide to teaching and learning online*. Cambridge, MA.: MIT Press.

- Im, Y., & Lee, O. (2003) Pedagogical implications of online discussion for pre-service teacher training. *Journal on Technology in Education*, 36 (2).
- Islam, T., & Selim, A. S. (2006). Current status and prospects for e-learning in the promotion of distance education in Bangladesh. *Turkish Online Journal of Distance Education*, 7(1). Retrieved November 8, 2007 from: <http://tojde.anadolu.edu.tr/tojde21/articles/islam.htm>
- Keniston, K. (2001, December). *IT for the Common Man: Lessons from India*, MN Srinivas Memorial Lecture. Bangalore : National Institute of Advanced Studies, India Institute of Science. [MIT published as a working paper in 2002].
- Mezirow, J. (1991). *Transformative dimensions of adult learning*. San Francisco: Josey Bass.
- Moore, G. M. (1995). Editorial: The 1995 Distance Education Research Symposium: A Research Agenda. *The American Journal of Distance Education*, 9(2). 1- 6.
- Moore, G. M. (2002). 'A Personal View: Distance education, development, and the problem of culture in the information age. In V. V. Reddy & S. Manjulika, S. (Eds.), *Towards Virtualization: Open and distance learning*. (pp. 633-640). New Delhi: Kogan Page India.
- Motteram, G. (2001). The role of synchronous communication in fully distance education. *Australian Journal of Educational Technology*, 17(2), 131-149.
- Namibia 's Policy Framework for Education (2004). *Toward Education for All: A development brief for education, culture and training*. Namibian Government.
- Salmon, G. (2000). *E-moderating: The key to teaching and learning online*. London: Kogan Page.
- Salmon, G. (1998). *Developing learning through effective online moderation*. *Active Learning* 9, 3-8.
- Taylor, C. (1995). Cooperative learning in an African context. *International Journal of Educational Research*, 23(3), 239-252.
- Toohey, S. (1999). *Designing Courses for higher education*. In Motteram, G. (2001). The role of synchronous communication in fully distance education. *Australian Journal of Educational Technology*, 17/2: 131-149.
- UNESCO (1988). World Education Report: *Teachers and teaching in a changing world*. Paris: UNESCO. In C. Yates (Ed.), *Teacher education at a Distance: Lessons and Experience from Sub Saharan Africa*.
- Valiathan, P. (2002). *Blended learning models. Learning Circuits: ASTD's Source for E-Learning*. Retrieved July 13, 2006 from: <http://www.learningcircuits.org/2002/aug2002/valiathan.html>
- Warschauer, M. (2000). The changing global economy and the future of English teaching. *TESOL Quarterly*, 34(3), 511-535.

White, C. (2003). *Language learning in distance education*. Cambridge: Cambridge University Press.

