

The Challenges of Blended Learning at UWIDEC: A Case of ICT innovations in the developing country context

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Abstract

In 1992, in an ongoing effort to promote regional development through higher education, the University of the West Indies (UWI) took a decision to widen access to UWI programmes and courses by incorporating distance education as an integral part of its operations. Based on this decision, the UWI was transformed from a single-mode to a dual-mode institution, with the University of the West Indies Distance Education Centre (UWIDEC) being created in 1996 to facilitate distance delivery. The UWIDEC's operations involved a mixed mode of delivery featuring audio-conferencing, printed materials and face-to-face tutorials. The UWIDEC, like many other distance education institutions has recognized the potential of Information and Communication Technologies (ICTs) to enhance distance education course delivery. To this end the UWIDEC has been incorporating the use of ICTs in the delivery of its programmes and courses, taking a blended approach. This paper explores the possibilities of technology-mediated learning for development by examining some of the changes that have been made by the UWIDEC to facilitate the move to blended learning, the challenges posed to quality assurance and the implications of these challenges for the continued growth and development of higher education.

BACKGROUND

The Distance Education Centre (UWIDEC) was established in 1996 to expand the university's initiatives in distance education. Currently, The UWIDEC offers a full undergraduate degree in business management, a certificate in Gender and Development Studies and a certificate in e-governance at its thirty-one (31) centres located throughout the English-speaking Caribbean. Traditionally, these programmes have been offered using a combination of synchronous (real time) and asynchronous (delayed time) interaction. The synchronous interaction has been facilitated through the audioconferencing system of the UWIDEC and face-to-face tutorials, while print materials and some computer-based activities and resources comprise the asynchronous elements.

One of the goals of the institution has been to make greater use of asynchronous technologies. To this end in 2001, UWIDEC St. Augustine embarked on a long-term research and development project designed to monitor and evaluate the expanded use of the ICTs in programme delivery and to identify and analyse the key factors required to facilitate its sustained growth in the university's distance education programme. Based on the first two phases of this research, it was projected that in order for UWIDEC to successfully incorporate web-based learning into its existing mix of course delivery methodologies, it was necessary, at least in the initial stages, to focus attention on development in three specific areas. The areas were, instructional design/course development, the training and development of course writers/coordinators (lecturers) in eLearning course development and the training of technicians at UWIDEC sites to function in the area of student support. (Kuboni, Thurab-Nkhosi & Chen 2002).

Following the research in eLearning, UWIDEC began incorporating on-line learning into the delivery mix using the learning management system WebCT, which was available on

the St. Augustine campus. In 2004, however a more formal decision was taken for UWIDEC to adopt a blended approach to delivery, which would facilitate more efficient use of information and communication technologies (ICTs) in the delivery of teaching and learning. This paper is a descriptive one, which outlines the “blended learning approach” adopted by UWIDEC and the innovations adopted to incorporate ICTs in the delivery mix of UWIDEC, focusing on the challenges faced and the success achieved.

BLENDED LEARNING IN THE UWIDEC CONTEXT

The Wikipedia (2005) describes blended learning as a “combination of instructor-led training and elearning or a combination of ‘face-to-face’ education and distance learning.” It is emphasized here that blended learning refers to a combination of educational tools and resources which includes elements of interaction with persons either face-to-face or electronically. The combination of tools used in blended learning may include technology-based materials as well as traditional print materials. Blended learning can involve group and individual study as well as structured, paced study or flexible, unpaced study.

While UWIDEC has traditionally offered its programmes using a mix of print, audioconferencing and face-to-face tutorials, not much use has been made of asynchronous, computer-based technologies. While there has been much debate about the effectiveness of technology-based learning versus face-to-face (Rampage 2005; IDECC 2005), the final impetus for UWIDEC to move away from synchronous delivery however, was influenced by practical considerations. With increasing student numbers over a wider geographical spread, and greater demands being placed on the audio-conferencing network, it was decided to move toward more asynchronous delivery (Marshall 2004). This incorporation of more asynchronous delivery using computer-based technologies into the mix is considered a move toward “blended learning”. More specifically, while UWIDEC students continue to be provided with a range of learning resources, the emphasis is now placed on asynchronous modes of delivery, with the ultimate aim of not having any physical tutorial/lecture attendance at all. This is in keeping with what has been described as the standard model of online education by Roberts et al (2000).

To initiate this move to blended learning, the UWIDEC established a blended learning project, headed by the curriculum specialist/campus coordinator, St. Augustine. The project was intended to prepare a set of pilot courses incorporating more asynchronous, computer-based technologies in time for delivery in the 2005/2006 academic year.

THE BLENDED-LEARNING PROJECT

A total of thirteen courses were selected as pilot courses based on the willingness and skills of lecturers/course developers at the Mona, Cave Hill and St. Augustine campuses. The course developers were content specialists for the respective courses and each worked with a course development team comprising a curriculum specialist, editor, web designer/ multi-media specialist and technician. The courses selected and the campuses where course development took place are depicted in Table 1.

Table 1: Pilot Courses for Blended Learning Project

Course ID &Course Title	Campus
1. SY14G - Introduction to Sociology	St. Aug.
2. FD11A – Caribbean Civilization	St. Aug.
3. MS23B - Caribbean Business Environment	St. Aug.
4. EC14C - Mathematics for Social Sciences	St. Aug.
5. FD12A – Science Medicine and Technology	St. Aug.

6. MS33B - Business Strategy & Policy	Cave Hill
7. MS34B - International Business Management	Cave Hill
8. MS15A - Introduction to Financial Accounting	Mona
9. MS31B - Management Information Systems II	Mona
10. MS32A - Human Resource Management	Mona
11. ED33A - Management Information Systems	Mona
12. ED33N Guidance & Counselling in Education	Mona
13. MS15B Intro to Cost & Management Accounting	Mona

The Minimal Package

Based on the time frame within which the pilots were to be ready for delivery, a minimal blended learning package was decided on which included:

- Printed resources that UWIDEC traditionally provided
- A website comprising course outline, course administration details, e-mail, discussion forums, links to resources
- A CD-ROM comprising lectures (PowerPoint slides with audio and/or video), for 10 of the 13 pilot courses.

Websites for the courses, as well as CD-ROMS, were not part of UWIDEC's original course design so these areas were innovations for the UWIDEC course development teams. A decision was taken to utilize an open source Learning Management System (LMS) called MOODLE, for the development of the course websites, while production of the multi-media CDs were sponsored by a grant from the Organization of American States (OAS). These two innovations to the course package, however, brought with them changes to specific processes and operations, in particular, the course development and course delivery processes.

Changes to the Course Development Process: Incorporating CDs and Online Elements

Vaughan (1998) and England and Finney (1999) identify a number of stages in the multi-media production process. Generally, out of the many steps identified by these theorists, one can identify seven steps generally used in multi-media (Thurab-Nkhosi & Seecharan 2005).

1. Brainstorm – Concept development
2. Treatment – How the idea will be expressed in an educational & a multimedia context
3. Storyboard/Mock Up – Visuals and text put together in a series of Key Frames
4. Storyboard to Script – A more detailed treatment including narrative, visuals and directions
5. Pre Production – Preparation of elements including text, stills, audio and visuals
6. Production – Authoring or sign off of all creative/educational/editorial input
7. Post Production – Review and Evaluation

Traditionally UWIDEC has followed four phases of course development.

Phase 1: Concept development

Phase 2: Pre-production – preparation of elements

Phase 3: Production - Authoring or sign off of all creative/educational/editorial input

Phase 4: Post-production - Review and Evaluation

Stages 2 to 4 identified by Vaughan (1998) and England and Finney (1999) were not necessary in a largely print-based environment. With the move to blended learning however and the incorporation of both online learning and CD development, the UWIDEC was required to expand the course development team and adjust the course development process to facilitate the new developments. Figure 1 depicts the traditional and Blended Learning UWIDEC course development teams.

Figure 1: UWIDEC TRADITIONAL VS BLENDED COURSE DEVELOPMENT TEAM

The course development process adopted during the blended learning pilot project was as follows:

1. During the concept development phase the course developer/content specialist met with the course development team to conceptualize the content and format of the online courses and in the case of 10 of the 13 courses, the CD.
2. Following this initial meeting/brainstorming session, the course developer was required to formalize the concept, following which a series of meetings were held with the web developer/multi-media specialist to ensure that the content and concept were appropriate for multi-media production.
3. A production workshop was later held on the Cave Hill campus, with all course developers, curriculum specialists and web administrators from each of the three UWI campuses. This workshop was intended to bring together all the preproduction work and finalize production of the CDs. Following this workshop, UWIDEC staff and course developers were expected to complete the CDs.
4. Simultaneously with the development of the CDs, the web administrators, Editors and Curriculum specialists worked with the content specialists to conceptualize and produce the course websites.

The seemingly condensed version of the multi-media process adopted by UWIDEC largely arose due to time constraints brought on by the need to meet grant conditions for the CDs. The issue of time constraints was one among a number of issues, which posed challenges to the successful incorporation of the CD and online elements of the blended learning project.

Successes and Challenges

In 2005 CDs were completed for 10 pilot courses, distributed to students and reviewed. Following is the general comment made by the reviewer:

Generally, the CD presentations are attractive and focused, and can be effectively used in supporting other course teaching/learning modalities. Most of the attributes assessed were rated either Acceptable, Good or Excellent with few instances of weak ratings. However, Figure 1 which gives a summary of the evaluation ratings clearly shows that the sub-criterion – Pedagogy II, which related to the opportunity for the student/audience to actively engage with the material, was not at all addressed in the presentations. This is an obvious potential of CD presentations that is often not taken advantage of in facilitating the learning process.

On a positive note, the CDs tended to target specific topics or situations and either provided a context in which the course could be understood, or addressed an issue that may be challenging to students. The use of colour and aspects of the graphics were very well done. (Edwards-Henry 2006, p.3)

In September 2005, 9 online course websites were developed and launched for students.

While maintaining the commitment of academics has been a difficult undertaking, the vision of a more flexible learning package for students, has motivated staff to continue on the project. In January 2006, six online sites were added.

While there has been some success with regard to the development of online courses and CDs, it is to be noted that there were challenges. Video and online inputs are new to the UWIDEC and as a result, the staff required for this activity and the hardware and software were not catered for early on. The addition of only 1 staff member to each team required existing staff to function in multiple roles. There is also dependence on existing academic staff at the university to provide the core content and creative input. These members of staff were not trained in multi-media production, nor were they accustomed to creating visual productions or online activities for teaching and learning purposes. Most were full-time teaching staff engaged in face-to-face teaching and responsible for large classes. The production of the CDs and the development of the websites were seen as add-ons to their already burdensome schedule and it was difficult, in most cases, to hold and maintain their commitment to completion of the project.

The production process was constrained by the tight deadlines within which activities had to be completed, in this case between June to September 2005.

Changes in Course Delivery: Moving to Asynchronous

Preparing eTutors

While full-time staff members of the UWIDEC have been affected by the move to blended learning, the greatest impact perhaps has been on the course coordinators, tutors and students who have been accustomed to operating in a synchronous environment. In the traditional mode of delivery at UWIDEC there was little use made of online learning and CDs. Recognizing the need to prepare course coordinators, tutors and students for the move to asynchronous delivery the UWIDEC conducted a series of training and orientation sessions.

Three training workshops catering to 150 tutors from throughout the region were conducted in January 2005. Coordinators of the various UWIDEC Centres were asked to nominate from among existing tutors of the 13 pilot courses, those who demonstrated commitment and would be willing to function as etutors. A total of 92 tutors from throughout the region attended the sessions held in three locations, namely Port of Spain, to accommodate persons from Trinidad and Tobago, Grenada and Belize; Kingston, Jamaica to accommodate those from Jamaican UWIDEC sites and sites in the northern Caribbean, and at Cave Hill, Barbados to accommodate those sites from Barbados and the Eastern Caribbean, excluding Grenada. The workshops covered a range of administrative issues as well as issues related to tutoring.

Preparing students

In order to prepare students for the online experience, an orientation course entitled Improving Your Study Skills was mounted from July 18-August 24 2005. The course was intended to provide students with the opportunity to improve their capability in using web-based or online learning, as well as their critical reading skills. A total of 834 students participated in the six-week course, which covered the following topics:

- Preparing for online learning
- Study Strategies
- Understanding the Reading Process

- Taking Notes and Writing Summaries

The first Unit of the course, preparing for online learning, included a two-hour hands-on session conducted by site technicians. The remainder of the course was delivered totally online, with the support of 40 eTutors most of whom were trained by UWIDEC.

163 students completed evaluations of the course, which indicated that less than half (36.3%) agreed that a face-to-face orientation was essential. Many of the students (48%) agreed that they were able to navigate the course easily however 38% agreed that they were able to access the online resources easily. While 42% of the students agreed that tutors were well prepared, 33.1% felt that feedback from tutors was not timely and that not enough student-student and tutor to tutor interaction took place.

Successes and Challenges

One of the major successes of the change to asynchronous delivery has been the creation of a pool of trained eTutors. This is a much-needed resource in the region as more institutions of higher education move toward more online course offerings. Another success has been the motivation and encouragement for students to actually use computers for more than word processing. As the blended learning project progressed, a fair number of students logged in and accessed the courses. Figure 2 below indicates log in information for courses offered between September 2005 and April 2006.

Login for Blended Learning Course Sites (up to April 2006) SEMESTER I

COURSES	NO. OF STUDENTS	NO. OF STUDENTS THAT LOGGED ON	PERCENTAGE	NUMBER OF ETUTORS
(SOCI1002) Introduction to Sociology	465	440	94	24
(FOUN1210) Science, Medicine and Technology in Society	272	252	93	20
(MGMT2011) Caribbean Business Environment	259	219	85	10
(EDEA3314) Guidance and Counselling in Education	86	85	99	6
(MGMT3017) Human Resource Management	133	111	84	18
(ACCT1002) Introduction to Financial Accounting	436	380	87	29
(MGMT3011) Management Information Systems II	136	128	94	14
(ECON1003) Mathematics for Social Sciences	490	395	80	23
(FOUN1101) Caribbean Civilization	302	204	68	13
(ACCT1003) Introduction to Cost and Management Accounting	200	120	60	7

(EDEA3301) Management Information Systems in Educational Administration	43	31	72	20
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Login for Blended Learning Course Sites (up to April 2006)

SEMESTER II

COURSES	NO. OF STUDENTS	NO. OF STUDENTS THAT LOGGED ON	PERCENTAGE	NUMBER OF ETUTORS
(FOUN1101) Caribbean Civilization	360	288	80	11
(FOUN1210) Science, Medicine and Technology in Society	475	399	84	20
(MGMT3037) International Business Management	120	101	84	6
(MGMT3031) Business Strategy and Policy	230	219	95	9
(EDEA3301) Management Information Systems in Educational Administration	172	167	97	8

While there appears to be a high percentage of students logging in to the courses, one of the challenges has been to encourage students to interact in the online environment through the discussions. Many students log in and browse the site, reading and lurking online without posting a discussion. Efforts have been made to address this by awarding grades for participation and also using the eTutors to motivate the students. One of the challenges faced however has been the lack of effective communication in some instances. Effective communication was considered a factor of technical as well as administrative issues. The introduction of blended learning using the open source LMS Moodle has made e-mail a compulsory requirement for both students and tutors. This means that theoretically at least, both students and tutors must create e-mail accounts and therefore, should have access to an electronic means of communicating.

Another challenge has been remuneration for eTutors. Within the university system there exists a clear policy on remuneration for face-to-face tutors, no such policy existed for etutors. The UWIDEC therefore had to create a system of payment.

LESSONS LEARNT AND IMPLICATIONS FOR DEVELOPMENT

With the completion of the pilot project in April 2006, reflection on the successes and challenges highlighted the following issues, which should be considered by any institution in the developing country context and looking toward online learning as a means of increasing access to higher education:

- Adequate technological and human resource must be available. In the case of the latter, a team skilled in web-based and multi-media development and supported with the appropriate hardware and software is essential.
- Realistic production schedules with contingency plans in the event of unforeseen circumstances should be put in place
- Adequate incentives should be provided which encourage course developers to

submit relevant materials on time and in-budget. And which sustains their interest throughout the process.

- Incentives for online tutors must be clearly articulated and sustainable.
- Student support in the form of adequate orientations and technical support as well as encouragement to participate in the online environment must be provided in good time.

Online learning offered by a regional institution such as The UWI has the potential to create a regional and ultimately international learning community. It also has the potential for capacity building particularly in skills that are globally marketable. In order to capitalize on the possibilities however and ensure that the innovations lead to the successful attainment of goals, the organization must be prepared to respond to the needs of not only its stakeholders, but also the vibrant environment within which we are operating.

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Figures

Figure 1: UWIDEC TRADITIONAL VS BLENDED COURSE DEVELOPMENT TEAM



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