

Developing Synergies in Blended e-Learning for Language in Higher Education

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Abstract

This article discusses blended learning as implemented in Sultan Qaboos University Language Centre. It divides materials into four categories: complementary, supplementary, required and communicative. Examples of each kind are offered and a commentary on the types of materials that are actually used by the students.

Abstrak

Artikel ini membicarakan pembelajaran *blended* seperti yang dilaksanakan di Pusat Bahasa di *Sultan Qaboos University*. Bahan-bahan pembelajaran dibahagikan kepada empat kategori: *complementary*, *supplementary*, *required* dan *communicative*. Contoh setiap kategori diberikan beserta komentar berkenaan jenis-jenis bahan sebenar yang digunakan oleh para pelajar.

Introduction

Blended learning (Garrison & Kanuka, 2004) is a combination of traditional classroom and out-of-classroom experiences with e-learning activities. It is sometimes referred to as a “hybrid structure” (Woods et al., 2004). The idea is to draw on the best features of:

- face-to-face education,
- access to paper resources (handbooks, texts)
- multimedia resources (video, audio)
- access to electronic information & resources
- interactive (synchronous and often asynchronous: “send now, reply later”) communication

There are many issues which need to be addressed in order to establish a successful “blend” (Jensen-Lee & Falahey, 2002). Here in Oman it should

capitalise on students' enthusiasm for technology while offering structure and guidance to them through the chaotic experience that is the Internet. Both students and faculty have shown enthusiasm for the introduction of e-learning within the context of their ordinary University courses (Al Musawi & Abdelraheem, 2004), even through the inevitable instability and teething problems that accompany the introduction of a new technology.

In the Sultan Qaboos University (SQU) Language Centre, e-learning has developed apace in the last three years. In the last semester, over 2,900 students were registered for courses blended with an e-learning component offered by the centre. What are they doing?

Ingredients of The Blend

There seem to be four main ingredients in the e-learning blend available to students.

- **The Complementary Component**

Course materials offered through e-learning as an alternate mode of delivery.

The complementary component offers an alternate mode of delivery for materials available in course books or classes. It offers alternative routes through the course material allowing students with different cognitive styles or learning preferences to choose the mode of delivery most suited to them and to respond using a different medium.

- **The Supplementary Component**

Additional materials and exercises to develop skills required by the course.

Experience of the language is the key to learning it and the learning management system can hold textual, graphical, audio, video and other materials that may well not be available in any textual source or deliverable satisfactorily in a classroom setting. The key here is to get students to interact with the materials, e-learning is not a replacement for a library.

- **The Required Component**

Assessed elements of courses

The required component consists of compulsory or assessed activities such as quizzes, tests, structures Internet research or writing exercises and similar tasks that lead to gaining or losing marks. Marks are collected or submitted through a learning management system (LMS) and held in a database where individuals may look at their own marks and teachers may look at anyone's work or the whole class's.

- **The Communicative Component**

Day to day course communication

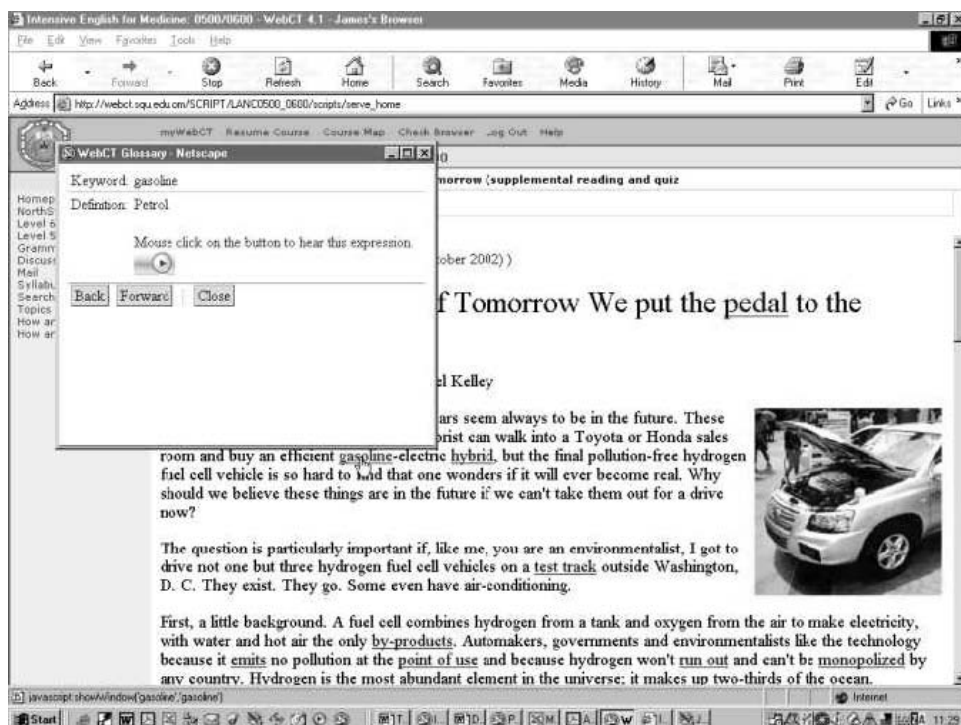
Students can write and read e-mails, post and read discussion board messages, read circulars, instructions and notices, take part in "chat" forums adding to their time actually using the language of their studies.

The Complementary Component

Language course books naturally contain many readings, often with related exercises. E-learning systems can also hold readings though it is well established that reading from a computer's screen (Wästlund et al. 2004) impedes both consumption and production of information and contributes to feelings of tiredness and stress. However people can and do read off computer screens and visual display system have some features that can enhance texts significantly. The display of high quality images is easy and cheap on computer systems whereas in printed texts it is still expensive and difficult even for print facilities at an institution as big as a University. More importantly texts can be glossed. Difficult or unfamiliar words can be highlighted and a hypertext link can open a dictionary facility with definitions or, more usefully still, contextual information, phrases and collocations (McAlpine & Myles, 2003). The dictionary link could also have a sound file attached to help pronunciation, if this is appropriate.

The illustration below shows what appears when the word "gasoline" is clicked in a reading about cars of the future in a course for pre-credit students at Sultan Qaboos University. Clicking the "play" button allows a sound file to be heard with the pronunciation, in this case using an appropriate North American voice. This facility uses the inbuilt glossary

function of our LMS however it is just as easy to use a free Internet dictionary such as the Merriam Webster Online dictionary which can define almost any word pasted into its search box and usually offer pronunciation too. Merriam Webster also has specialist dictionaries (e.g. Collegiate– by subscription, Medical Terminology-free) available online.



As important as the content may be the way in which it is presented. E-learning can offer presentation which uses best practice in the way it is presented. Research indicates that hierarchical text with simple scrolling is most usable (Calisir & Gurel, 2003; van Nimwegen et al., 1999). Hypertexts can be confusing for language learners (Altun, 2003) requiring familiarity with the conventions of the browser, video and audio embedded therein. These texts can have exercises attached, just as book texts might. At SQU there are hundreds of quizzes, short answer questions, matching questions, cloze exercises and crosswords developed using "Hot Potatoes" (Half Baked Software, 2004). These help students with weak English interact without needing well developed keyboard skills.

The Supplementary Component

One advantage of online presentation is the ability to respond quickly to news, current events or local events which cannot be incorporated in printed materials because the lead time is too great. “Newsfeeds” are an example of this. In an English for Medicine and Health Sciences course students have to use contemporary materials to write about medical issues. Current news is available in various ways. A web page with a “Google”™ search can retrieve stories from news sources as diverse as the BBC, the Hindustan Times, the Times of Oman and the New Zealand Herald. For more specialized news, News4Sites (or other services) can be used to produce results such as those below:

The screenshot shows a web browser window titled "English for Medicine II (Spring 05) - WebCT 4.1 - James's Browser". The address bar shows the URL: http://webct.squ.edu.om/SCRIPT/LANC2031FL04/scripts/serve_home. The page content includes a navigation bar with "myWebCT", "Resume Course", "Course Map", "Check Browser", "Log Out", and "Help". Below this is the course title "English for Medicine II (Spring 05)" and a breadcrumb trail: "Homepage > Readings > Malaria news". There are also icons for "Glossary", "Take Notes", "Search", and "Discussions".

The main content area is titled "Malaria" and "News4Sites Content Service". It lists several news items:

- [US Embassy to Use US\\$10 Million in Fight Against Malaria](#)
allafrica.com -- 2005-02-11 22:34:11
- [PSI Holds Field Journey to Fight Malaria](#)
allafrica.com -- 2005-02-11 20:25:05
- [FG Denies Banning Chloroquine for Malaria Treatment](#)
allafrica.com -- 2005-02-11 19:47:14
- [Setup these headlines on your site, Free](#)
news4sites.com -- 2005-02-11 07:13:15
- [Malaria Drug Could Save Many Lives](#)
ivanhoe.com -- 2005-02-11 07:00:26
- [Muhwezi Seeks Chinese Herbs to Treat Malaria](#)
allafrica.com -- 2005-02-09 20:10:04

The status bar at the bottom indicates "Readings: Page 12/106" and "Internet".

Students can thus read up-to-date news on the topic from original sources. These are alongside articles about the topic selected by the course teachers for their relevance and accessibility.

In the previous section exercises attached to texts were mentioned. Such homework can, unlike traditional homework, be monitored and the system can offer immediate feedback to the student doing them along with immediate scoring and recording of the scores. This is a significant improvement over standard homework tasks as it can monitor when they were done and for how long as well as if they were done. It also seems to have benefits due to the absence of the teacher. A study of grammar learning by Edina Torlakovic and Dwight Deugo (2004) showed significant positive results for a group learning how to use adverbs under computer instruction compared to a group taught by a teacher. The students control of their learning, the presence of immediate feedback and absence of negative feedback from the teacher all seemed to be factors promoting this kind of learning. Paradoxically, because students have a confidential log-on to these systems, the teacher has more control over the process than the teacher who hands out homework at the end of class and takes it in at the beginning of the next class. The order of tasks can be controlled as can when they are done. The feedback can be specified for correct and incorrect answers as can how the results are recorded if at all. If questions come from a test bank (another facility of many LMSs) students may not even have the same questions to answer. Though students can work with other students on their homework (as always), as with many forms of homework cooperative work, this can be good for both strong and weak students and many teachers encourage joint work at the keyboard.

The Required Component

There are a number of ways that e-learning can significantly enhance the required component of courses.

Computer-based tests can be administered under supervised conditions. This enables far more flexibility over the use of questions from test banks, decrease in opportunities for cheating as students don't get the same questions and enhanced facilities for analysis of the results, so tests can be refined in the future. The same test can be administered at different times

to different groups, adding to flexibility and reducing timetabling problems for students and teachers. As well as students getting instant feedback, so too can the teachers on which questions were easy or hard and which discriminated most or least.

Homework that contributes to the course grade can be supervised by the LMS and even when it cannot be marked (as with long written assignments), the marks can be added to the student's data for a transparent (to both teacher and student) record of the student's progress. Results are confidential and distributed according to whatever criteria the teacher sets up in advance. For example, a test result can be published as soon as the last student has completed the test if that is what is required.

The recording of marks feature has been used most creatively by one teacher at Sultan Qaboos University to generate data for assignments. This means each student will have a unique data set to write about in a discussion of results assignment for engineering students (Faisal Al Maamari, 2004).

If students are sufficiently computer literate then assignments can be submitted via the LMS monitoring exact submission times and minimizing opportunities for manipulating the system.

The Communicative Component

The range of communicative uses for e-learning in a blended course is vast. At its simplest a discussion board provides a notice board for teacher to put up course announcements in a location accessible to any student on or off campus. Many courses at SQU use this function either alone or in conjunction with others. Students enjoy and spontaneously use the notice board, even when enjoined not to! So, many ways can be found to capitalize on this enthusiasm. Simple research tasks where students have to post a link to an interesting site which then has to be described in class by another student can extend students' research and reading skills. An analysis of postings by students in an English for Science course (Tom Griep, 2003) indicated that there was no significant correlation between participation in class and participation in the online element which, for an English language course, is a very positive finding as it indicates that

different people are getting opportunities to express themselves through the different media.

Teachers can communicate with their students sometimes through the bulletin board, often for the mundane announcements, but sometimes using the information from the e-learning system in class. One teacher often put comparative percentage statistics for participation by different sections in the latest assignment on the OHP at the beginning of class. A positive comment about how well this class is performing compared to the others is always well received. A gentle observation that no other class has completed so few assignments has been known to change that situation within 24 hours!

Keyboard “chat” is very popular among students, even when they are usually on-campus. Most courses, so far, have avoided it because of the potential for abbreviated, ungrammatical “bad English”. However one programme discovered that the students had found a way into the chat room on their e-learning course and had been using it for over a year!

Students like the privacy email affords both for communication with each other and the teacher. The potential for e-mail is huge and largely untapped. One project uses the concept of “keypals” to get students to send and receive e-mail with similar ESL students in another country.

All these forms of keyboard communication have the advantage for some students of removing the face-to-face element. This can be especially useful when male and female students are required to communicate with one another to cooperate on academic tasks.

Synergy and The Blend

As soon as teachers start using blended learning it becomes apparent that new ways of both teachers and students interacting with each other and the materials are possible. Whereas it was never practical to communicate by letter in the traditional setting, communication by e-mail is fast, effective and a very efficient use of both the student and teacher’s time. Discussion boards can be consulted even if you do not enter the university that day. Students and teachers can be better prepared for their classrooms using these technologies.


Some of the most used material in the “English for Medicine and Health Sciences” programme are short videos with quizzes attached. A recorded video is digitized at a resolution of about 320 x 240. This is now well within the capability of a standard computer with either a video input card, “firewire” port or USB video input device. The resulting video in mpg or windows media version is embedded in a web page.

Listening Task	Topic	Level	Type	Speakers	Time
	Genetics/Medicine	HE/Adv.	Documentary	M & F	05:12

A Chance Find
(The Genetics of Bardet-Biedel Syndrome)

This video is about Bardet-Biedel (or Bardet-Biedl) Syndrome. This is a genetic disorder which leads to a group of problems (a syndrome) including obesity, mental retardation and blindness.

The video shows a Bedouin family with this problem and interviews the doctors treating them and studying the disease.



Preview Questions

Think about your answers to these questions before you watch the video. Write something down.

- Do you believe obesity is simply due to eating too much, or are some people more likely to grow fat than others?
- Are people's genes responsible for obesity?
- How can we find out answers to questions like these two?

1. Comprehension Check

2. Vocabulary Check

3. Sentence Sense Making

[Comprehension Exercise](#)

[Vocabulary Exercise](#)

[Sentences Exercise](#)

4. Advanced Questions

5. Something to discuss or think about

- What aspects of this research might be applied to a medical problem in Oman? What problem would this be?
- Even if you did carry a gene for obesity, that doesn't mean you will definitely become obese. Why not?

A quiz can be put on the page, the quiz making software Hot Potatoes™ (which may be used freely if quizzes are shared freely) could be used or the learning management system's own quiz software. The whole process can take less than an hour. In SQU most videos are loaded onto a media server, but the LMS itself can be used. The short video clips (often less than 2 minutes) will usually fall under "fair use" copyright provisions as they are factual materials, for limited educational use, small in extent and unlikely to be depriving the copyright holder of income.

Audio and video resources can be held on a central server and accessed by dozens of students at a time. One student can be doing a vocabulary exercise and another a grammar-based one using the same source material at the same time. Another student can do the exercise at home while not depriving a fourth student of the same opportunity. The college need not pay for twenty video cassettes to copy onto and the copyright fees, if applicable, are often much cheaper for electronically held materials.

The record keeping features of the LMS can act as motivators. Electronic homework is much easier to monitor and it is a simple matter to put up class statistics for the completion of this week's exercises during a class, thus rewarding an industrious class by acknowledging their efforts and gently and impersonally chiding classes where the exercises have not been done.

What Do People Think of The Blend?

One of the advantages of running the e-learning component through a learning management system is that the database maintained by the system can log events such as student logins, which pages they look at and which quizzes have been done. So we are able to look at what students actually do and don't have to rely on their answers to survey questions.

For the first level 5 and 6 course for medical students three of the top twenty items both in terms of time and visits are optional video quizzes and one is an audio quiz. These are among nine grammar and practice quizzes similar to the type of exam questions which got a lot of attention especially as students got close to exam time. By contrast, crosswords were not popular. Many crosswords were not visited at all. Students visited an average of 189 monitored pages during the semester at an

average of two pages per day. Interestingly only 23 of 125 students did the practice quiz for the final test and twice as many of these were women than men despite there being only 50 women on the course. In fact this pattern was repeated for most of these exercises.

The second credit course in Engineering probably uses the learning management system the most of all Language Centre courses. Here, for the monitored pages, there was an average of 408 pages accessed per student for the 160 students in 16 weeks. Each page was accessed an average of 105 times with over five minutes spent on the page. These estimates are underestimates as repeat visits using a cached version of the page are not recorded. Students favoured the short readings with self-monitored, staged, quizzes and vocabulary matching exercises made with Hot Potatoes™. The least visited pages were rubrics and information pages! This course made use of the discussion board for setting weekly tasks, giving out course information and making announcements. On average each student accessed 75 messages (including repeat visits) during the course, one message for each working day of the course! 42 messages were written by the course teacher out of 399 in total. Of the 152 students accessing the discussion board 133 posted at least one message, 73 sent two or more, 48 sent three or more. Conversely 19 sent no messages at all.

Enriching The Blend

Where are we going from here? The use of short video clips has been particularly rewarding and we are trying to extend this. We are investigating the sending of sound files from students to teachers, returned with comments by the teachers. We are looking to write integrated materials partly online, partly on paper. We are looking for ways to meet the challenge of students who are neither literate in English nor computer-literate. News has always been an important source for language classes. Internet news resources can provide endless research opportunities and tasks for students at short notice. We are looking for more examples of synergy!

It is clear to us that blended learning is not just more of the same. It is not rote learnt materials or black and white photocopied materials. It is not incomprehensible computer gobbledegook served to uncomprehending staff and students. Blended learning raises issues for professional

development (learning how to do these things), for resourcing (can the students get access to a computer with earphones?), for support staff (do the technicians know the setup for a browser accessing your LMS?), for leadership (how do you convince the sceptical?) and policy-making (what new policies are needed to support and control e-learning initiatives). It offers new challenges. How do you share the resources fairly between male and female students? How do you encourage responsible use of the Internet? How do you keep the bandwidth usage down and still allow students to watch the videos you have put on college computers not the movies they want to watch? How do you respond to student demands for more and more computers?

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