The Use of Wikis to engage FE students

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Background

.A typical college curriculum incorporates the need for valid ICT and information literacy skills no matter what discipline area is taught. Such an approach has raised the question of what currently constitutes a learning environment (Pelgrum, 2000). In recent years there has been an increase in the availability of computer hardware and software in colleges and most now operate a virtual learning environment (VLE) to support the learning process. (Mumtaz, 2000). However it is also increasingly clear that having access to the technology does not necessarily mean that it will automatically be integrated as a resource within teaching strategies. This could be partly due to an uncoordinated approach which has not encouraged effective policies or planning to take place. (Fabry and Higgs, 1997; Manternach-Wigans et al.., 1999.) On the other hand, it is also evident that much of the problems surrounding the lack of meaningful integration could be attributed to the lack of awareness or lack of confidence on the part of teaching staff. (Dawes, 2000; Larner and Timberlake, 1995; Russell and Bradley, 1997.)

Successful integration into the curriculum depends on teachers being convinced of the relevance of ICT to provide access to a broader relevant range of resources for themselves and students. (Cox, M., Preston, C., Cox, C; 1999). The potential impact of informed and effective use of ICT as a classroom resource has far wider implications than merely enhancing the immediate learning experience. (Harrison, C.et al; 2002).

This paper forms part of an on-going study into ICT integration and the development of blended learning models for a new college build in a medium sized North East Further Education College. The impact of Web 2.0 technologies is seen as an important feature of this blended approach. The research is also part of a wider study to explore the development of an integrated knowledge system in the college based around the concept of a portal to communicate applications and management information and where ICT is a vital but transparent element in management practice.

Theory

Marc Prensky (2001) states in his *Digital Natives, Digital Immigrants* paper.

"Today's average college grads have spent less than 5,000 hours of their lives reading, but over 10,000 hours playing video games (not to mention 20,000 hours watching TV). Computer games, email, the Internet, cell phones and instant messaging are integral parts of their lives".

Prensky sees today's students as digital natives who think and process information fundamentally different to their predecessors. One technology which is claimed to enable this change is the wiki, a web based interface where information is not fixed but malleable and adaptable to meet the needs of participants. Ferris, S., and H. Wilder. (2006) advocate the use of wikis as a teaching and learning tool but state that their utilization in the classroom requires thoughtful and deliberate planning as well as creativity and enthusiasm in order for educators to achieve the most effective and appropriate instruction.

This study hoped to determine if similar issues related to FE students and that wikis were applicable in creating a learning environment appropriate to students engage in work based activities with external agencies such as employers..

Method

The initial approach to this study involved the review of texts that would indicate best practice in the use of social software tools such as wikis. Ferris, S., and H. Wilder. (2006) observed that it was interesting that even though we had entered a new digital age, it has had a slow rate of impact on teaching given the unprecedented and dramatic impact of these technologies on society and industry. How did this relate to an average FE College? In order to determine some benchmark of ICT activity in the college, a survey of some 150 staff regarding their ICT skills and current practice within a vocational FE college was undertaken.

Once a model of current practice had emerged, a study was undertaken to determine how effective the use of wikis would be within specific groups of FE students.

The factors supporting the successful use of Wikis

 Kopyc, S. (2006) observes an image of technical competent students wandering our text-dominated landscape by citing from the title of Farris-Berg's report (2005) for Education/Evolving, an initiative interested in student views about education. This report combines and summarises research on student attitudes, perceptions, and behaviours with regard to using digital technology, particularly for learning purposes. Kopyc comments that the Farris-Berg report indicates student awareness of the role technology plays in changing and shaping how they learn, but also that these students voice their teachers' use/non-use of technology in teaching. Kopyc claimed

students want "challenging, technologically oriented instructional activities" and, Kvavik's research (2005) states:

> "The interactive features least used by faculty were the features that students indicated contributed the most to their learning. The students were especially positive about sharing materials with students (38.5 percent), faculty feedback on assignments (32 percent), and online readings (24.9 percent)."

The research goes on to indicate that "students claim their schools and teachers have not yet recognized the fundamental shift occurring in the students they serve and in the learning communities they are charged with fostering" . Kopyc, S. (2006)

What is causing this discourse? Are academics engaging with technology to cultivate the skills necessary to meet the needs of a techno-generation of students? Kopyc addresses this using the philosophy of Lehigh University (2006):

> "The University as a whole is a laboratory in which faculty, staff, and students work and experiment together. While we as computing staff, faculty, and administrators may not be there yet, the net generation students have arrived, and their increasing expectations for e-learning cannot be easily dismissed."

Would the development of a collaborative culture in an FE college enhance a student's learning experience? Are FE lecturers technically aware of the changes needed within their teaching strategies? To answer these issues, studies on staff ICT skills, their use of course management tools (Virtual learning environments) provided an understanding of where the college stood in terms of developing the next generation of teaching styles.

The college perspective

As part of the college's blended strategy it was necessary to establish what level of engagement staff had with basic ICT. Without this knowledge, how could the college move forward in encouraging the integration of ICT into the teaching and learning environment? A staff audit indicated a shortfall in some very basic skills and this was addressed by specific staff development programmes covering a range of topics that reflected the needs.

- Accessing College VLE and Intranet.
- Blackboard familiarisation.
- Powerpoint.
- Email from home.
- Interactive whiteboard use.

Table 1: Staff development programme based on skill audit

The claim that levels of confidence and therefore levels of ICT use are directly affected by the amount of personal access to ICT that a teacher has (Ross et al., 1999; Cox et al., 1999; Guha, 2000), the amount of technical support available (Cuban, 1999; Bradley and Russell, 1997), and the amount and quality of training available (Pina and Harris, 1993) was supported within the college when a sample population of the skill audit were interviewed regarding their needs.

A college VLE survey provided the breadth of involvement staff had in differing programmes of study. Lecturers teach on a minimum of one and a maximum of five programmes, with 50% staff teaching on four or more of these courses. When determining their roles in such programmes, the survey indicated that the vast majority of these teachers (65%) acted as both course leaders and/or tutors. VLE usage statistics showed that although the college had over 1000 unique courses, less than 200 had active VLE presence. How could the college improve VLE involvement? 55% of staff surveyed felt they did not have time to develop resources whereas 40% would like better access to ICT equipment. Only 5% of staff wanted ICT staff development time.

The college surveys, carried out over two academic years, seemed to indicate that there had not been a great deal of success in raising basic ICT skills and was somewhat inconclusive in resolving the lack of ICT integration into teaching practice. Staff, although making some progress, voiced similar concerns to those observed in a Becta literature review (Scrimshaw, P. (2004); Becta (2004)) and can be summarised using the following table

External Barriers	Internal Barriers
Lack of access to resources	Lack of confidence
Lack of time	Resistance to change and negative attitude
Lack of effective training	No perception of benefits
Technical problems	

Table2: Summary of barriers to effective ICT use taken from Becta review of literature

Would the evolving Web 2.0 culture be feasible in such an FE environment? Since the college was moving to a new site designed to be technology based, it was vital to engage staff in some research using social software tools in order to determine where the college was in developing a new net-generation culture.

Several sample groups were selected for a range of trials using wiki technology. These groups included:

- Travel and Tourism students working on research about holiday destinations.

- Work Based learning groups in a variety of disciplines (Business administration, teaching assistants etc.)
- Foundation Degree students studying Chemical Technology.
- Local school children (year 10s) on an increased flexibility programme studying eMedia.

These groups were selected because the tutors involved in delivery had some interest in developing ICT integration, even though some staff participants were not very ICT literate. All the selected courses had an active presence on the college VLE (Blackboard) and hence students had some experience of using internet based resources.

The wiki software used in the trials was based around hosted sites using a free service provided by http://www.wetpaint.com. Funding was not available during the trial period to obtain appropriate Learning Object building blocks for Blackboard but since the research was designed to test the validity of wikis, the platform was not considered a barrier.

Evaluation

The wiki trials were conducted over a four month period, although some groups have an on-going commitment. Initial induction to the wiki software with both tutors and students created no technical problems. Staff and students were familiar with the college VLE and access to the wiki was instigated via a hyperlink within their course area. Activity on each wiki was monitored over the trial period and followed up with appropriate feedback from staff and students.

The use of wikis varied significantly between groups. In the case of Foundation Degree students, the tutor used the wiki as a means of collaborating with students on an assignment which involved a chemical industry problem initiated by a local employer. The web space was used as a brainstorming tool between staff, employer and students. Although the tutor used Blackboard as his course resource area, he also used the wiki to elaborate on particular issues within the assignment. This approach seemed to support Ferris, S., and H. Wilder's. (2006) observations that the use of wikis requires thoughtful and deliberate planning as well as creativity and enthusiasm.

In contrast the use of wikis in the work based learning environment did not result in much success. A group of enthusiastic tutors planned a wiki site that would allow students facilities to develop their work based evidence. This activity was in fact a simple eJournal, but offered students the opportunity to collaborate with each other and interact with the assessor during the four days they were at their employment base. A group of teaching assistants (aged 16-19) were considered to be ideally placed to take advantage of this initiative. The results however were somewhat disappointing. All these students preferred face-to-face contact with the tutor and continued with text based evidence when they attended college on the fifth day.

Could the differences in approach be age related? Most of the work based learning students were recent school leavers and seemed to have expectations that written work was the norm at college. However some collaboration between the group and assessor did take place , but outside the working day and by means of mobile phones and text messaging.

A similar experience was observed with the group of Travel and Tourism students where most returned to text based work after an initial flurry of enthusiasm on the web based approach. What was interesting in all these trials was the engagement of a group of 14 year old school pupils who used a wiki effectively to develop both content and skills in web animation. In this case students (a group of 12) worked collaboratively both in college and outside college to develop their wiki. All these students became involved and developed their understanding of web animation in a very positive manner.

Conclusion

The use of collaborative tools such as wikis has not been a conclusive success. Careful planning by creative and enthusiastic tutors seems to have a positive effect on student engagement, but it could be argued that success is more dependent on whether the institution has a net-generation culture rather than a print based one. (Ferris, S., and H. Wilder. (2006)):

> "Although the impact of electronic and cyber technologies on teaching has been studied by many scholars from McLuhan (1962) to Papert (1994, 1999; Papert and Friere 1980), few scholars have noted a change in the dominant print-based teaching paradigm."

Activity amongst students varies significantly. Some collaborated well using the social software, but others deliberately avoid its use and reverted to a paper based methodology. Successful use of wikis was predominant with groups whose learning environment was significantly electronic or web based. Creating the net-based environment seemed to enhance the interaction.

Further studies are obviously necessary to determine the reasons behind these results. College staff have grown up with a dominant print-based model and any progress towards a new net-generation culture may require "nurtured coercion."

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