e-Modeling – Helping Learners to Develop Sound e-Learning Behaviours

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Abstract: The learning and teaching relationship, whether online or in the classroom, is changing. Mentis (2008) offers a typology of teacher roles gathered from current literature on e-learning including instructor, designer, guide, mediator, curator and mentor, which offer the university teacher a striking range of ways in which to develop relationships with students in the mutual development of knowledge and understanding. A study of Higher Education teachers in the UK proposed a shift in their role and behaviour concomitant with the explosion of VLE usage in universities (Greener 2008). As online and blended learning become familiar features in the university landscape, pedagogical discussions are being given more priority and ideas about how students can be enabled to learn appropriate skills for employability and lifelong learning, as well as higher order thinking, claim attention. Online, the teacher's status can easily be eroded, as learners can compare teacher-designed resources with video lectures from across the world on similar topics and chat directly with experts in the field through their blogs. Teachers who are open to new ways of thinking about their subject, and welcome such self-directed behaviour from learners, are most likely to integrate new technology into their teaching (Baylor and Ritchie 2002), and their own competence with technology will be a factor in how such integration works. But it is vital in these discussions not to lose sight of classroom behaviour in the rush to develop e-moderating and blogging skills for teachers. What teachers say and do in their face-to-face classes has always had a major impact on not only what is learned but also how it is learned. Bandura suggests that most human learning is done by observing and imitating others' behaviour (1977) provided the potential learner attends, can retain, reproduce and wants to do these things. So if we aim to integrate at least the affordances of VLEs into teaching design for blended learning, one of our considerations must be how the teacher uses the VLE in front of the learner. There is no doubt that teachers are increasingly uploading materials and weblinks etc into VLEs to support learners (or are made to by institutional policy). However there is less evidence that teachers are role-modelling effective e-learning to their learners. Some of this is about competence, but it is rare for a teacher to lack the ability to learn basic technology use. More of this reluctance is about fear and anxiety, to be shown up as incompetent in class to what are considered the net generation. This paper will explore the concepts and behaviours implied in the role-modelling of effective e-learning in the classroom, drawing on data from teachers and learners involved in using VLEs and other Web resources in face-to-face sessions.

Keywords: role modeling, social learning theory, teaching methods, conceptions of teaching

1. Introduction

This paper starts by reviewing the basic purpose of Higher Education teaching and learning, then drilling down to find a basis for good teaching as we battle with the introduction of e-learning and blended learning on campus, working with Virtual Learning Environments. Why the notion of battle? This is because many university teachers are still reluctant to do more than upload existing materials and fail to take advantage of opportunities to develop effective learning strategies among students for dealing with web information overload and varying information quality. The proposition is that our approach to teaching in the classroom can affect e-learning practice by students. In fact, good teaching implies of course that, in order to develop effective learners, teachers need to be visible learners too.

2. What is learning and teaching about in universities today?

The author writes as a practitioner who grapples like other university teachers with the demands of timetabling, course design and delivery, student needs and making sense of some of this through her own approach to learning and scholarship. These of course are the day-to-day headaches and adrenalin rushes of faculty life. The broad aims of the university, particularly based on the Humboldtian concepts from the nineteenth century, suggest a role in preparing people for citizenship, forming their conceptions of learning and shaping democratic societies (Gare 2005). This notion of university is independent of state intervention, but supports the state by providing it with people able to contribute to society. My university's corporate plan (University of Brighton 2007) speaks of "socially purposeful Higher Education". Also within the plan the Vice Chancellor speaks of:

> *"finding creative and effective ways in which to strengthen the relationship between learning and teaching, disciplinary and professional practice, research and economic and social engagement." (pIII)*

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To do this, the university has a number of specific aims, which are clearly set out by Bourner (1997 p347) as to:

- Disseminate up-to-date knowledge
- Develop the capability to use ideas and information
- Develop critical faculties
- Develop the student's ability to generate ideas and evidence
- Facilitate the personal development of students
- Develop the capacity of students to plan and manage their own learning

Bourner is keen to point out that there is no hierarchy among these aims. In his paper, he sets out suggested popular teaching methods which may fit these aims, noting that no one particular teaching method is "right" in any sense, but that collections of methods may be more appropriate for a particular aim.

The choice of teaching method, a practical as well as planned choice, is usually down to individual teachers, many of whom may have been more aware of their role as a scholar and/or leader in their academic discipline, than as a designer of teaching (Kember 1997 who cites Becher 1989 in support of this idea). Developing awareness of options and pedagogies in the classroom is now routinely done on start of academic appointment in most UK universities. However there are many faculty who have not had the opportunity to debate and reflect on their approaches to teaching during a specially designed induction to higher education practice. For these teachers, planning classes and modules/courses can be a repetition of what they experienced themselves or constrained by course leaders or teams with whom they are teaching. If a course has worked in the past in a standard lecture /seminar mode, and the materials already exist, many teachers will feel pushed towards using them, rather than venturing into design activities seen as time-consuming and unnecessary, provided materials are up to date.

3. So what is the problem?

The learning and teaching relationship, whether online or in the classroom, is changing. Mentis (2008) offers a typology of teacher roles gathered from current literature on e-learning including instructor, designer, guide, mediator, curator and mentor, which offer the university teacher a striking range of ways in which to develop relationships with students in the mutual development of knowledge and understanding. In addition to this level of change, each university is offering new software capabilities, mobile learning gadgetry and, increasingly, a requirement to conform to minimum use standards of a VLE. While some of the gadgets and software will actually support and develop the lecture mode of delivery (such as Personal Response Systems designed to engage and engender discussion among large groups), much of the software now available will involve students and teachers in online collaborative learning, and where teachers fear to tread, students will often lead the way and demand coherent use of VLEs, and preferably Web 2.0 technology, to support their learning.

4. Conceptions of teaching

A study of Higher Education teachers in the UK proposed a shift in their role and behaviour concomitant with the explosion of VLE usage in universities (Greener 2008). As online and blended learning become familiar features in the university landscape, pedagogical discussions are slowly being given more priority, through the use of varying corporate strategies (top-down imposition through to bottom-up "early adopter" leadership). In many universities, ideas about how students can be enabled to learn appropriate skills for employability, citizenship and lifelong learning, as well as higher order thinking (critical, creative and reflective thinking, and learning strategy development and implementation) claim attention.

Kember's review of largely independent studies into conceptions of teaching by academics (1997) is particularly helpful here. His proposal is that of the thirteen studies he reviewed from the early part of that decade, there was a great degree of consistency in suggesting teaching conceptions (defined as meanings attached to the idea of teaching). These fit into his model of five conceptions, broadly situated on a continuum but incorporating quite distinct characteristics:

- Imparting information
- Transmitting structured knowledge

- Teacher-student interaction
- Facilitating understanding
- Conceptual change

He sees the first two conceptions as being "teacher-centred" or "content-centred", the final two as "student-centred" or "learning-oriented", and the middle concept, teacher-student interaction, as a "transitionary bridge between the two orientations and their subordinate conceptions" (p264). The point of thinking about conceptions here, is that Kember suggests that the conception of teaching is a basis for teaching approaches and thus behaviour in the classroom (he is speaking of face-to-face teaching here). The teaching conception, similar to the notion of "antecedents" discussed by Jacobs (2005) as the basis for theories in practice and action in practice, is seen to drive teaching behaviour. This model is similar to findings by the author in a study of teachers who were enthusiastic about online learning (2007) where the grounded analysis theorized differences between teacher beliefs in their approach to classroom teaching and blended or online design. These were most distinct for those teachers who remained content-centred and teaching-centred rather than learner-centred.

5. The changing role of the teacher

According to Greener's respondents in the above study, a good teacher was considered to be no different online from a good teacher face-to-face, in the sense that the activities listed below:

- awareness of student needs,
- levels of understanding and knowledge,
- ability to plan effective learning experiences,
- ability to communicate accessibly and
- to stay in touch not just with current discipline knowledge but also with contemporary influences on students' learning

would be just as important whether in the classroom or online (Greener 2007 p77).
However the study found that teachers had a greater opportunity to influence the learning experience at an early stage in online environments – not only through socialisation of students as discussed by Gilly Salmon (2000) in her model of e-moderation, but also through the design of online environments and activities with Virtual Learning Environments (VLEs) and by incorporating online learning into a blended design.

However, online, the teacher's status can easily be eroded, as learners can compare teacher-designed resources with video lectures from across the world on similar topics and chat directly with experts in the field through their blogs. Teachers who are open to new ways of thinking about their subject, and whose conceptions of teaching are more student-centred, or learning-oriented, welcome such self-directed behaviour from learners. These teachers, who are open to change, are most likely to integrate new technology into their teaching (Baylor and Ritchie 2002), and their own competence with technology will be a factor in how such integration works.

6. We can't change "openness to change"!

Or perhaps we can? Kember's view suggests that teachers may adapt their conceptions, moving along the continuum towards more learning-oriented beliefs, as they become more experienced, perhaps more confident in their teaching role. As we discuss e-learning, new opportunities from software and gadgets and the wonderful world of Web 2.0, perhaps we need to remember that all these ideas can be a huge challenge to most teachers, particularly those with teaching or content-centred conceptions or beliefs. In the rush to develop e-moderating and blogging skills for teachers, it would be so easy to reinforce negative self-efficacy beliefs among teachers already challenged by heavy teaching loads and reducing unit of resource for teaching, while individual students clamour for more personal attention in return for increasing fees. If you already feel so constrained and stressed in the university environment of the 21st century, the idea of more personal learning, lots more preparation of blended designs, greater technology set-up times in rooms not quite up to speed with your needs – these things are more likely to reinforce a belief in focus on content and knowledge than an openness to change and learning orientation.

If we want to move towards that end of the conception spectrum, then we should perhaps keep a clear eye on the practice of teaching. We all learn from what we know and move forward into new

territory from existing paths. Even transformational learning (Mezirow 2000), qualitative changes in how we know things, leads out from our personal starting points or where we currently are. My contention is that by understanding and valuing great classroom behaviour, "good teaching" as exemplified by the work of Chickering and Gamson (1987), and Mehanna (2004), where a learner focus is based on interaction, dialogue, feedback – giving a clear lead to students on learning, we can help faculty develop confidence in what they currently do, and build self-reinforcing behaviours which become more open as technology affects more and more the teaching methods used. However, I would challenge the two articles just cited in that they give no clear emphasis on the practice of role-modelling learning for the student.

7. Why is role-modelling important?

Chickering and Ehrmann (1996) suggest that teaching methods are more important in helping learning than technology alone. While I would say that technology is more than just a tool for learning, it is increasingly a way of life for students and teachers alike; the way we put technology across to our learners does matter.

So if we aim to integrate at least the affordances of VLEs into teaching design for blended learning, one of our considerations must be how the teacher uses the VLE in front of the learner. There is no doubt that teachers are increasingly uploading materials and weblinks etc into VLEs to support learners (or are required to by institutional policy). However there is less evidence that teachers are role-modelling effective e-learning to their learners. Some of this is about competence, but it is rare for a teacher to lack the ability to learn basic technology use. More of this reluctance is about fear and anxiety, to be shown up as incompetent in class to what are considered the net generation.

What teachers say and do in their face-to-face classes has always had a major impact on not only what is learned but also how it is learned. In medical education, it has long been the practice to use consultants to role model professional conduct to junior doctors. A recent study (Paice et al. 2002) confirmed that such learners value openness, enthusiasm and integrity in their role models.

Bandura suggests that most human learning is done by observing and imitating others' behaviour (1977) provided the potential learner attends, can retain, reproduce and wants to do these things. Social learning theorists such as Bandura and Zimmerman put forward in theory what most teachers know only too well in practice – that their behaviour in front of a group, or virtually within a group, strongly affects learner response.

Zimmerman (1989) asserts:

> *"The impact of modeling on self-regulation is given particular emphasis in social cognitive formulations. The modeling of effective self-regulated strategies can improve the self-efficacy for even deficient learners." (p9)*

Bandura suggests that modelling "coping strategies" can improve the self-efficacy of learners, even where the latter is negative on the basis of past experience (Bandura 1986 p 400). This works particularly well when the learner perceives some similarity with the model. In the context of this paper, the suggestion is that the university teacher who is prepared to role model dealing effectively with technology in the classroom, will become an intermediary factor in the developing of the student's self-efficacy, which in turn is likely to support learning. Where the teacher experiences problems, similar to those faced by the student – for example in searching for appropriate literature through databases, in finding relevant information from a complex website, or in analysing the authority or credentials of information on the web from various sources, then to do this in front of the student in class, is likely to encourage their own learning and prompt them to use the technology more effectively when alone.

Role modelling good e-learning practice in face-to-face sessions with students, "e-modelling", is suggested, on the basis of social learning theory, to be powerful, offering opportunities for attention, retention, reproduction and motivation to learn vicariously. Such practice is helpful for learners, particularly non-traditional students who may have varying experience of web use for learning, despite regular use for leisure and day-to-day living. When students start to use the web for higher academic study, the result can sometimes be "learned helplessness" (Seifert 2004) rather than improved self-efficacy, as the expectation of instant answers leads to a lack of depth in search and analysis.

The author has found that use of web technology in the classroom (based on the experience of undergraduate and postgraduate teaching over the last eight years in a UK university) offers a range of opportunities for the modelling of effective learning: for example, to answer student questions by searching and discussing findings, then leaving a track of useful findings on the VLE for students to reference. The VLE can be prepared with weblinks and questions for these activities, and asynchronous forums can provide places to record class discussion output as well as presenting it as it arises. Videos and podcasts from other universities and professional institutions can be sought and played if and when appropriate to class questions.

In addition, regular use of the VLE in class offers reinforcement of layout and navigation of module sites, often preventing repeated questions from students as to where and how to find information – both administrative and academic. Students complaining of difficulties of access can have problems resolved there and then, and be encouraged to move on in their use of both VLE and the web to support their reading and analysis. Formative feedback can be offered in class or outside to students who are encouraged to upload and share presentations on work in progress towards academic assignments. While all these things can happen effectively online, in a blended design it is vital to demonstrate these activities in class, with the teacher prepared to show effective learning approaches and openness in the face of new information and perspectives.

Demonstrating effective e-learning behaviours can draw on studies such as Greener 2007 to determine what students might need to see "e-modelled" by the teacher. The table below shows the results of this study in terms of ideas on appropriate behaviours and debates from respondents interviewed:

Table 1: Results of this study

Behaviours or debates for online skills development in HE	Notes
1. Appropriate and alternative vocabularies	Debate use of language in the subject studied and how this affects web searching
2. Knowledge of search tools	Academic resource searching online (how to use online literature databases, portals, how to find and use online journals)
3. Evaluation of information	Once arrived at academic resources online, how to judge their quality and relevance to the search topic, (and how to do this for non-academic but relevant websites), how to cut down on less relevant information, how to store and retrieve web pages and documents on personal media
4. Adopting personal reading strategies	Dealing with screen-reading versus printing issues
5. Referencing conventions	The institutional or publisher views on how to reference online sources
6. Presentation of academic writing online	Ground rules on academic writing online including a discussion of appropriate spelling and grammar rules such as texting language, use of emoticons, use of upper case, formatting, need for checking before submission, awareness of impact from lack of non-verbal cues.
7. Asynchronous discussion guidelines	Academic writing online in discussion boards for asynchronous debate (ground rules on content and length, how to attach documents, how to start new threads and respond to others, choosing appropriate threads to keep the board tidy, keeping messages simple and using multiple messages for separate ideas or contributions etc)
8. Blogging and journal writing for academic purposes	Academic writing online in weblogs, wikis or personal journals where these activities are enabled alongside or within the learning management system (course-relevant ground rules on what is and is not acceptable in personal comments, pictures, references to others, as well as frequency of contribution, making and responding to comments, maintaining shape and structure and the principles of reflective writing, how to organize and systematize reflection and distinctions between reflective and critical writing)
9. Social presence online	Group awareness online in order to use groups to set social rules, frequency of contribution and to use the group to solve problems, rather than try to do this individually, perhaps assigning roles (such as de Bono's six hat thinking, or Belbin

	roles, or pro/con/summary contributions).
Behaviours or debates for online skills development in HE	Notes
10. Analysis and synthesis in online communication	Analysis online ensuring that students understand that description of experience, and sharing facts and sources are good practices but insufficient without analysis and synthesis of ideas presented. Encouraging the adoption of propositions, debate and précis online.
11. Self-directed learning online	Debating the concept of self-directed learning, its value, what behaviours are involved and demonstrating how online and physical resources can be used to develop thinking, add to and change impressions and ideas received from classroom sessions, and how this behaviour is valued in the academic course (relationship to learning outcomes and purpose). In particular, demonstrating the choice of activities and timelines available online and how these might be used according to personal priorities and learning approaches.
12. Synchronous discussion guidelines	Where synchronous discussion is used, how to use commands on screen, how to contribute and upload comments, how to keep track of discussions.
13. Adapting the virtual space	Personalising the virtual space, how to feel at home online without breaking university rules, using any tools provided to arrange the learning environment to suit study patterns, learning approaches and revision needs.

Such behaviours can be demonstrated, not just by doing things well in front of students, but sometimes being prepared to take risks and try new things, to build common ground with students who face such new activity and may frequently fail to get the instant returns they expect. Rather than do the same in front of students in class, the suggestion is that teachers, with whatever necessary preparation, role model such behaviours using projected screen, VLE and web tools, and compare them to more effective search and analysis strategies. Most teachers will have had to do this themselves in the course of developing modules and teaching, as well as in pursuit of scholarship. This means that by demonstrating these behaviours in class, rather than engaging in the mystical cult of the all-knowing lecturer, they can help learners to identify with an effective learning approach, answer student questions by searching online for answers with the class, rather than delivering an immediate answer and very probably learning more themselves, through student interaction, as a result. Modelling good presentation techniques in the classroom and lecture theatre has its place, but modelling learning, and learning using today's opportunities afforded by technology, must be more helpful to students who need to become learning experts – not just to graduate, but also within their ongoing or future careers.

8. Conclusions

If we look back to Bourner's aims for Higher Education, we find that working with an online environment in the classroom (for reference, genuine enquiry, demonstration, recording of interaction, as well as the more normal uses such as showing video, presentations and podcasts) becomes a teaching method well suited for many of the aims. These include the dissemination of up-to-date knowledge, through real-time information searching and discussion in class, as well as demonstrating how to use ideas and information, role modelling critical analysis of resources found or prepared, stimulating student creativity by engaging their combined efforts in class to guide searches and discussing outcomes, and role modelling approaches to learning based on a "learning" rather than a "content" orientation.

These ideas about using the web pro-actively in class are presented on the assumption that the teacher is prepared to appear open and perhaps vulnerable in class. That is, they are comfortable with not getting the right answer first time, valuing contributions found on the web (where there is genuine value) and not insisting on being the only person in control of what the students learn. What they are there to demonstrate is a valuing of learning processes, rather than a valuing of content. This clearly fits poorly with teaching conceptions which are knowledge or content focussed, so the strategy of using web technology in the classroom as a vehicle for learning, rather than as a static, controlled presentation medium may not be comfortable for all university teachers. However, it was suggested above that openness can be learned on the basis of improved confidence. Sometimes, this is a question of giving the student experience greater importance than the teacher experience in order to

produce the socially purposeful outcome of the able enquirer and critical thinker who is at home with evolving technology.

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