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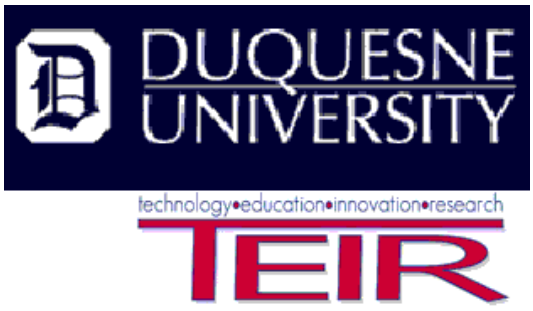

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This Journal was established to facilitate collaboration and communication among researchers, innovators, practitioners, and administrators of education and training programs involving technology and distance learning.

An academic institution, Duquesne University, was chosen for its commitment to academic excellence and exemplary programs in instructional technology and distance learning. Duquesne University is supporting the Journal through its graduate program in Instructional Technology and its Center for Technology Education Innovation and Research (TEIR Center). In addition to its educational programs, Duquesne University has major training contracts for industry and government.

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Editorial:
Online Education and Instructional Quality

Brent Muirhead
Guest Editor, June 2004

The field of distance education has made definite progress in the past ten years but it remains an immature academic discipline. As a veteran online educator, faculty mentor and researcher, it concerns me that our online courses sometimes lack a certain dynamic quality that can be found in traditional face-to-face classroom settings. The utilization of multimedia is often limited to Power Point presentations or simulations which are individually oriented activities that fail to promote interaction between students.

Today's online courses require having skilled instructors to increase the level of interactivity. Contemporary instructors need training to become more skilled at effectively using emails, creating threaded discussions and moderating online small groups or learning teams. Therefore, it is imperative that all higher education organizations offer relevant training for their online instructors. Additionally, research studies recommend that universities and colleges consider enhancing the quality of their online degree programs by considering six recommendations:

> **recognition and support of online instructors** - universities and colleges must address questions about tenure and providing appropriate financial arrangements for teaching assignments.
>
> **instructors sharing their expertise and resources** - administrators need to foster the concept of mentoring in higher education to assist new online instructors.
>
> **online policy development** - higher education officials must develop realistic policies about ownership of online materials, royalties and teaching at other institutions.
>
> **research online programs** - universities should invest time and financial resources into research efforts that would enable them to have the type of online learning programs that will meet their needs.
>
> **cultivating educational partnerships** - a major cost cutting strategy would involve creating partnerships with other institutions that have similar interests in online education. This would encourage saving money on courseware through joint testing of tools and products.
>
> **encourage reflective instruction -** higher education institutions must develop a relevant and vibrant curriculum that encourages critical thinking and knowledge creation by their students (Bonk, 2002).

The six recommendations are considered foundational to fostering quality in online degree programs. Obviously, there are institutional barriers that must be overcome to implement relevant changes. The academic credibility of online degree programs will be enhanced by colleges and universities who are willing to embrace a contemporary vision of learning that wisely invests their resources into online education.

Reference

Bonk, C. (2002). Online teaching in the online world. USDLA, 16 (1). Available: http://www.usdla.org/html/journal/JAN02_Issue/article02.html

Editor's Note: Anita Pincas has written a timely article on an investigtion into mobile phones. Researchers have recently given more attention to mobile technology due to it's potential national and international educational and business uses. Pincas's discussion highlights how mobile phones can be effectively used by tourists at the 2004 summer Olympic Games in Athens, Greece.

Using Mobile Phone Support for Use of Greek During the Olympic Games 2004 (The Inlet Project)

Anita Pincas

Abstract

*The **INLET** project (Lingua) will demonstrate techniques for promoting immediately contextualized introductory Greek language at the Olympic Games in 2004. This paper will review implications for language learning motivation as well as more general underlying principles for ubiquitous just-in-time knowledge approaches involving SMS messaging including an SMS searchable database.*

Keywords: Greek, Olympic games, language support, motivation, ubiquitous, just-in-time, SMS

Project overview

The project was granted under the *Socrates Programme Lingua 1*, entitled INLET – Introducing Language Enhancement Techniques. Technically, it is relatively straightforward. Tourists coming to Greece for the Olympic Games will receive

- leaflets at airports, hotels, and sports venues explaining the language help available
- some useful Greek phrases on the leaflets
- a mini disc with the same information as on the leaflets
- phone number to register their interest
- SMS messages sent regularly to their mobile phone with useful phrases
- facility to request and receive SMS translations from or into Greek

Educational aspects of INLET

Features of ubiquitous support

The parameters of the project fit with generally agreed principles for ubiquitous support such as

Advantages	Limitations
Portable Personal Access Multi-device delivery Multi-user Multi-language User management	Physical limitations Psychological limitations

Some sample application categories are:

Sample Applications
Diagnosis
Self-assessment
Performance support
Language learning
Collaboration
Online mentoring
Reinforcement

INLET adds another application to the list, namely Information Supply. We can consider the output of the project under two headings of (a) Information Supply, where we will find it links with Performance support, and (b) Language learning, though we would revise this to "Language supply". There are different factors to consider under each.

INLET Information Supply

INLET recognizes the common fact that people on the move need information in three ways, ie in different spaces, in different areas of life, and at many different times (McLean 2003). But this does not necessarily follow an m-learning paradigm where the ultimate assumption a transformation of learning styles (Vavoula and Sharples 2002). In that paradigm, the principal pedagogical considerations to be taken into account would be (Singh 2003).

1. Urgency of learning need
2. Initiative of knowledge acquisition
3. Mobility of learning setting
4. Interactivity of learning process
5. Situatedness of instructional activities
6. Integration of instructional content.

But we revise this list to fit information supply, without assumptions of learning on the part of the user:

1. Urgency of information need
2. Initiative information acquisition
3. Mobility of *setting*
4. Interactivity of *process*
5. Situatedness of *needs*
6. Integration of *content*

Chen and colleagues (Chen *et al* 2002) noted four trends in mobile applications. The first is from courseware to performance-ware such as the stand-alone learning content model needs to transform to a context-driven, task-sensitive, performance-support model. In our model, there is performance, but not necessarily learning. The second is from instructional design to performance-based design, where compiling content and courses transforms into job, task, activity, and business application context analysis. Our model is based on activity and application context analysis. The third is from course management to business workflow where business

workflow and processes become the delivery platform for mobile learning and performance support. Our model is towards activity flow and performance support. The fourth is from mouse-and-click to pen-and-voice interface, which our model clearly follows. These are exemplified in relation to language provision in the next section.

INLET language provision

Given the well-known current obstacles of limited memory storage, small screens, and intermittent connectivity (Vavoula and Sharples 2002), we agree with the recommendations by (McLean 2003) that any initiative must either improve on existing practices or do something that cannot be done using existing technologies and practices, and that there should be no attempt to provide a total solution to any learning program. Thus, in considering the language question for tourists at the Athens Olympic Games, it was clear that learning even elementary Greek would not take place in a period of one to three weeks. Clearly, it was linguistic performance activity of some kind that tourists would require. We therefore considered which were likely to be the most useful linguistic activities a tourist normally wished to perform, and then, which would be most useful to our specific sub-set of tourists.

An inspection of a typical pocket Berlitz dictionary and phrase book for travelers, shows 2500 dictionary items, 7 pages of basic grammar and pronunciation, and 140 pages of phrases in the categories: arrival, hotel, eating out, traveling around, sightseeing, relaxing, making friends, shopping, money, post office, and doctor. This is clearly more than information supply; it is an aid to learning as well as just-in-time performance support.

To follow our goals meant that we needed to select a small sub-set of the categories. There was no ready research information to guide that selection. We therefore used our judgment that the following categories of words and phrases would fulfill the most urgent Greek language needs for a tourist spending only a few days in the country.

- **Basics**: greetings and other polite phrases, naming, numbers, and words like come, need, know, help, wait, have, like, want, is, am, are, very, passport.
- **Where**: Where is, here, there, right, left, in, to etc., by taxi, bus, subway, train, on foot, street, etc.
- **When**: now, later, today, tomorrow, What is the time?, days of the week, etc.
- **Olympic Sports**: Olympic Games, Archery, Athletics, Fencing etc.
- **Buying**: money, credit card, How much? Expensive, cheap, sales, buy, I would like, etc.

Our languages are, Greek, English, German, and Slovenian, based on the perception that English is the world's lingua franca, and the other two were languages of a prior existing partnership but also covered a range of people likely to attend the Games.

We feel that our language choices supply information in terms of the categories listed above. Clearly there would be a strong *situatedness* of all the *needs* we cover, with an urgency for the Greek language *information* in the specific situation, which would vary according to the mobility of *setting.* The way our system is designed, some of the dictionary items are supplied to the mobile users by SMS on a regular basis several times every day. Others are available by request so that users take the initiative in acquiring the *information* through the mobile interactivity *process*, in which the users themselves integrate the situation and the information *content.*

In other words, we fulfill the main goals of just-in-time learning even though we do not assume users will necessarily retain the information as language knowledge. Nonetheless, we are offering information availability any time any place, and also information on demand. And, finally, the

users themselves determine whether and how they will engage in developing short-term skills learning when they attempt to understand or say the Greek items.

Why language provision by SMS?

The system as described actually provides what a book does. So the question arises: Why develop our system rather than assume tourists could buy their own pocket books?

First, we could not assume they would come with helpful books, so leaflets with some useful Greek phrases to be picked up at airports, hotels, and sports venues would fulfill a need. Second, for those with minidisk players, we offer the sounds of the language as well as the written form. Third, the SMS messages sent regularly to their mobile phone with useful phrases would be a constant reminder of the real possibility of communicating - even minimally - with members of the local community. Fourth, we incorporated items that are more targeted than a standard tourist pocket book would be. Fifth, even though learning Greek is not a goal we expect in a tourist to the Olympic Games, all our messages could be saved by the users and therefore re-used as often as needed, and perhaps ultimately learned.

However, perhaps the strongest motivation for the project was not to fulfill the needs of the Olympic Games traveler, but the needs of Greece as a minority language state within the European Union. We recognize the now limited interest in other languages, and that we are dealing with people with very *low motivation* to learn that language. Why, then, should they use any Greek at all? Our answer is that we want them to "feel" a connection to Greece and its people. For Greeks, this has to be linked to the language, even though there are many people who are deeply interested in Greek language and culture, especially of Ancient Greece, with no knowledge of or interest in the language. But, we feel that by enabling visitors to say and understand at least some very minimal, basic words, a rapport with Greek people might be established in ways that would not happen just by using English. This is what we often call phatic communication; it doesn't really convey anything informative (facts), but it establishes an emotional bond.

We need to motivate them to make the effort to try to use Greek, and, as we all know, a small effort is usually more likely to be undertaken than a bigger one, especially if it attracts attention by being in some *way unusual or unexpected*. People are less likely to reject an offer if it *is easy to cope with* and it *doesn't cost anyt*hing. The INLET project design meets these requirements.

It has never been done before in quite this way. People with mobiles may have learned to receive unsolicited advertising SMS messages, or messages from their connection provider, but not free material that would be of genuine use to them [though some of the advertisements are useful, i.e. where the nearest car park is]. It is therefore likely to arouse some curiosity. It is easy to cope with even while the user may be doing other things while traveling with distracting things going on, and therefore with lower concentration. The SMS messages will be short – no more than 160 characters. Use of the minidisc is also quite simple for anyone who has a minidisc walkman. Finally, registering the phone number and opening incoming SMS messages is not difficult and will be free.

I did a small but international survey to discover whether people would want the help we will have on offer, and the results are perhaps surprising and disappointing. I asked over 200 of my students- who are all mature adults studying in the Online Education and Training course at the University of London. By definition, being on this course, these students were all ICT literate people, and had chosen to become even more so. Yet, fully half of them said they did not want to receive our SMS help. One was very violently opposed, claiming he could learn the language better in a person-to-person way in the taverns, playing cards and drinking ouzo with the village Greeks. He misunderstood our goals, which were not to teach the language. We are not

discouraged by such responses to a questionnaire that is asking a hypothetical question out of context. We believe that the same people would respond quite differently if asked while actually in Greece.

This of course remains to be discovered at the time of writing this paper. As we all know, there are many factors that could skew our statistics. We will be collecting the numbers of people who register, who use the service, who ask for more, who use the dictionary, and we will try to get some kind of evaluative response from users if possible.

Overall, this project points to contemporary uses of ubiquitous technology that are highly likely to impact upon more learning and teaching methods as palm devices are integrated with internet-connected mobile phones and supplied with fold-away keyboards.

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About the Author

Anita Pincas is Senior Lecturer in Education, Institute of Education, University of London, Visiting Fellow, University of Westminster, and former Director of Pedagogy for the Virtual Learning Development Trust. She has taught online and written about her methods for over fifteen years, having been a user of the internet for educational purposes since 1988. She initiated and ran the world's first online MA TESOL with over 200 graduates, and in 1992 established the international Online Education and Training course that has grown into a worldwide multilingual qualification with almost 2000 graduates to date. Personal Web page: http://www.ioe.ac.uk/english/Apincas.htm; Online Education and Training: http://www.ioe.ac.uk/english/OET.htm.
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Editors Note: Marianne Coleman shares a slice of the rich educational legacy at the University of London. There is a valuable discussion on one of their new graduate online graduate degree programs which fosters leadership skills and knowledge development. Students are given instruction and research projects that will enable them to effectively refine their professional policies and practices.

On-line Learning at the University of London: building on a heritage

Marianne Coleman

This paper outlines the long established tradition of distance learning at the University of London. It then focuses on one of the newer distance learning programs at the University, an MA in Applied Educational Leadership and Management which is being taught via the Institute of Education, University of London through a Virtual Learning Environment. This MA is available to international practitioners engaged in leading and managing educational institutions.

Distance learning through the University of London

Distance learning, including flexible learning and on-line learning, is a rapidly growing phenomenon which seeks to meet the needs of an increasing demand for qualifications and training in the context of life long learning. Distance learning offers the opportunity to people to work and to study at the same time. It means that adult learners can avoid some of the potential disruption that study can bring to the rest of their lives while enhancing their professional and academic qualifications; working from home at times that suit them. It seems very much a development of recent times. However, in the case of the University of London the development of distance learning can be traced back to the origins of that University in the early nineteenth century (Bell and Tight, 1993). The University has been chartered since 1836 and is unusual in that it provides an over-arching structure for constituent colleges who are responsible for teaching. The University itself has been, and continues to be responsible for functions other than teaching such as examinations and the awarding of degrees. Originally in 1836 there were just two constituent colleges: King's College and University College, but now the University of London is a federation of 19 colleges, one of which is the Institute of Education.

From its inception, London has sought to provide access not just to local students but also to students throughout the UK and in many areas of the world, particularly Africa and Asia. Throughout the history of the University of London, external students have been registered and assessed by exactly the same criteria as internal students but have been taught in places other than London. For example, students studying at colleges in England, which later became Universities in their own right, were often assessed through the University of London. However, the University also taught by correspondence course, that is the provision through the mail system of study materials and guidance, from the end of the nineteenth century onwards (Bell and Tight, 1993). The mission statement of the External System of the University of London indicates this heritage:

To promote world-wide a program of degrees and other awards primarily for students who cannot attend full-time courses at the University of London. Objectives are:

- To provide through examination and, where appropriate, distance learning a portfolio of degrees and other awards for external students of the University of London examined to a standard equivalent to those available internally.
- To develop high quality distance learning materials to support external students.

Since 1993, the individual Colleges of the University have been given more autonomy, and the central organization of the University has continued and extended its support to external students through funding the development of a range of distance learning courses, many of them online. However, in keeping with its earliest beginnings, the teaching and therefore the development of courses is being done by the constituent colleges, whilst functions such as admission and examination are undertaken by the parent body of the University.

In the academic year 2003/4 the External program of the University of London provides over 100 award-bearing programs from 14 Colleges to 36,000 students in more than 180 countries (internal document 2004). Most of these students are studying undergraduate programs particularly in law, but about 16% are following one of 61 postgraduate programs.

At the Institute of Education, which is a specialist post-graduate college of the University of London, several distance learning courses are in development. To take one example, in September 2004, an MA in Applied Educational Management and Leadership is being launched. Following the well-established traditions of the University, students will be supplied with specially written materials. However, like many of the courses being developed now, this MA is based round a vital constituent: a virtual learning environment. One of the functions undertaken by the University of London for its Colleges is to develop a VLE, which can then be tailored to the needs of each course.

Education for leadership and management in the UK

Internationally, master's courses in educational leadership, management and administration are relatively common. In the UK, possession of such a post-graduate degree is not mandatory for principals as it is in many US states (Bush and Jackson, 2002), but about 50 per cent of all secondary (high) school principals in the UK do have this qualification. However, the national qualifications in the UK for head teachers (principals) and for middle managers in schools increasingly do have an online component. For example the Leadership Program for Serving Heads (LPSH) includes both a residential workshop and the use of a website including a conferencing facility and by 2001 this facility was being used by 38 per cent of serving principals (Crawford, 2002). Nevertheless, it is still relatively rare in Britain for online learning to be the main mode of delivery for a master's course in the area of educational leadership and management. In a review of literature on e-learning for leadership in the UK carried out for the National College for School Leadership, it was found that:

> *The practice of leadership development has a long history. E-learning of course, is a much more recent innovation and often supports content-based training programs. There is little research into the use of e-learning for leadership purposes. (McFarlane et al., 2003, p. 2)*

The MA in Applied Educational Leadership and Management and Online Learning

The MA in Applied Educational Leadership and Management offered by the Institute of Education in London, is at the forefront of growth in this area as the course has been developed specifically to be online. There are several reasons for using a VLE for the delivery of the course. First of all it has the advantage of flexibility regarding access. Most of those who take a Master's qualification in educational leadership and management are mature students who are working full-time as professionals and will benefit from the flexibility of working on a distance learning course which can be built into the time available to them in their busy lives. Students on the

course can log in at times that suit them for as long as it suits them and, within limits, can plan their own study timetable.

Another reason for the course being distance learning and online is that it is intended for an international audience. This development is in the context of world-wide changes in education, the most noted of which is the trend towards the devolution of power from national governments to their regions and/or the institutions. In the UK this move has been particularly radical, with individual schools responsible for the administration of their own budgets and for the choice and employment of teachers. Such changes have highlighted the importance of leadership and management for educational professionals who, in the context of devolution and site based autonomy are often taking on greater powers of decision making. The development of an online distance learning program in leadership and management with an international perspective is therefore particularly appropriate, as such a program allows comparisons to be made across international boundaries thus creating fresh insights into what might otherwise be culturally bound practice.

A further reason for the course to be online relates to the inclusion of the word 'applied' in the course title. There is a stress in the course on how theories of leadership and management are actually applied in the individual context of the student and their institution. Students are encouraged to consider theories in practice and then work together to compare their findings through online discussions. The online environment is ideally suited for such co-construction of knowledge. Working through the modular program with students in small groups facilitated by tutors, it is intended that the course will mirror the five-stage model of Gilly Salmon (2000). Starting with accessing the VLE and then socialization amongst the students, moving on to an exchange of information about their experience and circumstances and then on to comparative thinking and the development of new knowledge.

	Stage	Technical Support	e-Moderating, Tutor Support
1	Access and motivation	setting up system and accessing	welcoming and encouraging
2	Online socialization	sending and receiving messages	familiarizing and providing bridges between cultural, social and learning environments
3	Information exchange	searching, personalizing software	facilitating tasks and supporting use of learning materials
4	Knowledge construction	conferencing	facilitating process
5	Development	providing links outside closed conferences	supporting, responding

(adapted from Salmon, 2000, p. 26)

The VLE that is being used has been customised for the use of the MA. It incorporates an area for each module, which is timetabled for structured learning activities. Students are divided into groups of about ten, and each group tutored by an e-moderator. The VLE will also include informal discussion areas; a range of online learner support and links to online resources including the University of London Virtual Library. The course encourages the development of effective online skills through the mediation of the online tutor. Students are referred from the VLE to study the extensive hard copy distance learning materials which have been written by experts, mainly from within the Institute of Education specially for the course.

As might be expected, from the applied ethos of the course, assessment focuses not only on the acquisition of knowledge, but on the ability to analyse understanding of theory and concept through their application to the work situation of the individual student.

Expected learning outcomes:

By the time they have completed the MA in Applied Educational Leadership and Management, participants are expected to:

1. have acquired knowledge and a reflective understanding of key principles of educational management and leadership in educational systems and institutions, particularly schools;
2. have reflected critically on, and applied key concepts, analytical frameworks and selected research findings in relation to management and leadership issues in their own and others' places of work;
3. be able to analyze and synthesize key concepts and frameworks derived from the academic and professional literature on educational management and leadership;
4. have carried out research related to their professional practice;
5. have developed a critical understanding of aspects of the policy context relating to educational leadership and management;
6. have considered how to develop strategies to improve educational organizations and reflected on the values that underpin them;
7. have a greater appreciation of their own and colleagues' professional development needs.

The emerging findings about e-learning for educational leaders (McFarlane et al, 2003) indicate that effective practices include: adopting a learner-centered approach; creating program content which accords with the cultural values of the professional learners; encouraging a group dynamic; offering ongoing support to learners throughout the program and monitoring learner satisfaction. It is hoped that the MA in Applied Educational Leadership and Management will incorporate these effective practices by focusing on the needs of international learners in the field to provide appropriate content with a supportive and dynamic mode of delivery.

Finally

The development of educational leaders through a Master's course delivered online to international students is building on a tradition of the delivery of education and training to external students of the University of London which goes back more than 150 years. The University through its constituent colleges is now developing courses that are responsive to national and international needs and utilizing twenty-first century technology to meet those needs.

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Marianne Coleman BA, MA, Ph.D. is Director of an online distance learning course for an MA in Applied Educational Leadership and Management at the University of London. She is Research Tutor of the School of Educational Foundations and Policy Studies (Institute of Education) involving the oversight of 160 doctoral students and their supervisors. Previous work experience includes director of a distance learning MBA in Educational Management at the University of Leicester.

Dr. Coleman has taught and supervised students in the UK, Hong Kong and Israel at the Master's and Doctoral level. Additionally, she has been a teacher in secondary schools and working for the advisory service of a local education authority.

Dr. Coleman's primary research interests involve women in educational leadership and management. Another vital area of investigation is her cross cultural research into educational leadership and management. She has worked on projects in China, Singapore and South Africa. Dr. Coleman has a passion for studying practitioner issues and has studied the impact of mentoring new head teachers. Dr. Coleman can be contacted at: m.coleman@ioe.ac.uk.

Editors Note: Muhammad Betz engages in a relevant discussion to assist instructors in establishing instructional strategies that promote vibrant online learning teams. Betz highlights recent research studies that reveal the complexity of small group dynamics. The author describes essential best teaching practices such as creating a team charter to help instructors to effectively manage their learning teams. Betz offers insights into the University of Phoenix and its instructional strategies to encourage interactivity, quality student work, and positive learning experiences.

Online Learning Teams: Indispensable Interaction

Muhammad K. Betz

Learning and Interaction

In a learning-centered educational environment (Glatthorn, 2000) the curricula, courses, and lessons are structured to optimize learning as the top priority of educational enterprise. In the educational environment commonly established for the milieu of online courses, an indispensable variable for ensuring optimal learning is that of interaction (Betz, 2002). It is a given that online courses usually include either synchronous or asynchronous requirements for student participation with the intention of creating student interaction. In the popular Blackboard system for hosting courses, for example, there is a special section called, Discussion Board, that allows instructors or students to post threaded messages to which other students reply. At the University of Phoenix Online, where as many as 100,000 students are enrolled in online courses at any given time, the mode for class discussions is a newsgroup folder hosted in Outlook Express. These types of discussions, while allowing individual students to ask questions of one another, do not develop a sense of community in all students, nor foster pragmatic abilities associated with group dynamics that are often required in professional life. Cast in terms of the "engagement theory" of learning (Kearsley and Schneiderman, 1998), the essential characteristic, collaboration, is missing or random.

Gusky (1997) states the following:

> *The discomfort that accompanies change is greatly compounded if those involved perceive they have no say in the process of if they feel isolated and detached in their implementation efforts. For this reason, all aspects … must involve teams of individuals working together. (p. 199)*

The above quotation captures the essence of learning in online courses, in that e-learning is first and foremost a changed learning environment. Further, while discussions in the broad sense promote interaction between students and between the students and the instructor, they don't provide teamwork-based interactions. As an antidote to perceptions of isolation, virtual learning teams build synergistic learning efforts among students in online courses (Scarnati, 2001). Synergy is a term that if often associated with medical practice and the uses of combinations of drugs to treat illnesses. The premise is that the sum of the effects of the combined drugs is greater than the simple summative effects of the drugs if taken separately. The use of collaborative, team based learning activities in online courses can create a synergy of learning as result of the interactions associated with teamwork, that will create a greater accrual of learning, than the simple sums of individual learning efforts.

The justifications for learning teams/communities in online courses is tacitly based on a need to compensate for an unfavorable situation related to that fact that students will not meet each other as in face-to-face encounters (Abbas, 2003). However, in the post-TQM world of corporate and

professional endeavors, groups and teams have become common because of the positive effects of combining the efforts of individuals into small groups (Uribe, Klein, and Sullivan, 2003). Another important reason for team-based work is that technology-enhanced work and learning environments have become more complex, to the point that individuals simply can't work in isolation (Head, Kaplan and Welker, 2001). Learning teams serve as a nexus between the job and education, between theory and practice, and between individuals and respective groups (Gibbons, 1999).

One research study compared traditional classroom efforts on group assignments compared with similar team assignments in classes that were computer-mediated at a distance (Scifres, Gundersen, and Behara, 1998). The results of this comparison indicated that while teams working exclusively through the medium of computers were less satisfied with their projects, they evidenced a higher rate of learning than their traditional counterparts. Another related study conducted by Lantz (2001) reported that professionals working in computer-mediated teams were more task oriented than traditional teams, in support of the earlier study.

In a different research study, researchers investigated the effects on students of two differently designed online course formats (Liu and Johnson, 2004). Eighty randomly selected students from online classes were equally represented by two groups of forty students from courses with two design formats: Type I design was a simpler, linear format, while Type II design was more complex with a non-linear format. Both types of courses were analyzed according to a variable called "interactive communication," based on the following different levels: (a) daily, (b) weekly, (c) class-wide, (d) within-group, and (e) private. The Type II design included all five types, while Type I design very often included only one level, private. The results of the study showed significantly more learning in courses with a Type II design, and it is inferred from this study that online learning teams would account for the within-group interaction variable.

Learning Teams for Al l Online Courses: A Best Practice

The University of Phoenix Online (UOP) offers undergraduate and graduate courses to students in courses with a small class size of eight to fourteen adult students, and learning teams are an essential part of all UOP Online courses. The students in each of these courses are divided into learning teams of 3-5 students, who collaborate together to complete assignments that are especially beneficial to working adult learners (Learning team handbook, 2003). As described in the Learning Team Handbook, "Learning teams are small, intact groups of students formed at the beginning of each course from the larger cohort. Teams meet…to complete group assignments and projects" (p. 2).

A typical UOP Learning Team assignment is portrayed by the following one which has been taken from the graduate course, E-Learning in the Global Environment. Each learning team is instructed to work collaboratively during all six weeks of the course to develop a "best practices" manual for conducting online courses. This manual must address the topics of content, technology, assessment, communication, instructional design and delivery, as well as components of class interaction, diversity, globalization, culture, courtesy, research integrity, flexibility, and rigor. The Learning Team completes one chapter of the manual each week, and during the last week of the course, submits the compilation of chapters and a PowerPoint presentation of its contents.

Managing Learning Teams

The size of groups is an important element of the success of these online learning teams. Research with learning teams indicates that they work optimally with four or five members (Learning team handbook, 2003). A study conducted about optimal team size in undergraduate

marketing courses returned findings that learning teams work best when team size is equal within the course (Cosse, Ashworth, and Weisenberger, 1999).

In addition to the issue of team size, it can be stated that online Learning Teams will not succeed automatically. Students need orientation to online teaming for the successful conduct of team activities. For example, an essential concept of teaming orientation at UOP Online for successful Learning Teams is "followership" (Lundin and Lancaster, 1990). Students are introduced to this term in courses at the beginning of their online programs, so that they become capable in learning situations where they are not working autonomously and often are cast in subordinate roles to others in their groups. The key team members' values to be stressed are integrity, ownership and versatility.

Team Charter

In addition, an integral document to use with any learning team, online learning teams included, is a team charter (Wilkinson and Moran, 1998). As stated,

> *The team charter is the official document from the team sponsor that empowers the team to act. It is a written document describing the mission of the team and how this mission is to be accomplished. The team charter is one of the most under-used and under-valued tools available to sponsors, team leaders, and facilitators for helping a team succeed. (p. 355)*

The Learning Team Charter should be completed as soon as team membership is assigned and in most online courses, that would be in the middle of the first week of class. It is preferable that students have received some level of instruction about teamwork prior to the online course, but a descriptive e-handout of guidelines for completing the charter should be provided for all students to read, regardless. The following components of the charter are recommended by the University of Phoenix (2002):

- **Course and contact information**-Students identify their course and instructor, and share contact information.
- **Team member skill inventory**-team members identify for their teammates what they the think they bring to the team in terms of special aptitudes, knowledge and skills for special team-related roles
- **Learning team goals**-the team lists its goals for the course, including those relating to the completion of assignments, quality of work, or team meetings. In this section, potential barriers to realizing goals should be mentioned as well as identification of strategies for problem identification and solving.
- **Ground rules**-the team members identify and agree to the rules of conduct for the team, related to such protocol items as meeting times, roles, responsibilities, methods of contact. The object is to improve team performance and minimize conflict.
- **Conflict management-**while admitting that conflict is generally unavoidable, the team agrees that it should be managed. The team identifies potential sources of contact and outlines how to manage and prevent occurrences.

All teams would be required to submit their team's charter by the end of the first week of the class, using a stipulated format or template based on the above points.

Another factor that needs to be added to the list of necessary characteristics of online learning teams is the instructor's accountability. Once teams are assigned and the team work begins, instructors must remain active in enhancing the resulting learning. The University of Phoenix Learning Team Handbook (2003) gives the following list of instructors' responsibilities:

1. Guide students through the formation of their learning teams.
2. Review the Learning Team Charter forms and provide feedback for improvement of charters.
3. Clearly delineate team assignments and performance expectations in the course syllabus.
4. Evaluate team assignments and projects, including relative contributions of individual team members.
5. Advise and coach teams that experience conflict.
6. Procure feedback on team progress as the course proceeds and provide coaching for improvement.

Individual Accountability

Prominent researchers have stated that individual accountability is necessary for cooperative learning-based instruction in order to ensure student achievement (Slavin, 1983; Kagan, 1996). As Slavin (1983) noted in his classic study on the effects of cooperative learning on student achievement, group learning is, of course, highly effective for problem solving because only one student on a team must know the solution or answer for the group to succeed. It follows that when learning is considered, individuals in groups must be held individually accountable for their contributions and efforts to team projects with rating scales completed by team mates (Meyerson and Adams, 2003).

In relation to point four above, team members should be provided the opportunity to rate the contributions of their teammates, and instructors are advised to create weekly rating forms that add accountability to individual team members' efforts. This tactic is necessary for each individual to know that her/his efforts on the team are being monitored and for the team membership in general to know that fairness is being applied in the evaluation of team efforts. A simple three or four point rating scale can be used with each assignment and/or each week's team activities. For this strategy to succeed, students must be required to submit the form every week. Instructors are then to prorate the team score in relation to each individual's team score. Students should be notified in the course syllabus that this policy is based on the premise that individual grades on team assignments honor those who have worked equitably.

Conflict

Many researchers agree that conflict within online learning teams is has both positive and negative effects on performance and learning (Caudron, 2000; Colbeck, Campbell Bjorklund, 2000; Montoya-Weiss, Massey, and Song, 2001, and Swenson, 2002). Swenson (2002) cites two major types of conflict on learning teams: affective (emotional) and cognitive. While emotional conflict is seen as debilitating, cognitive conflict is seen as motivational. As Caudron (2000) notes, "good" conflict is a source of creativity and growth, while "bad" conflict damages relationships and ultimately hinders performance.

One research study investigated the efficacy of five conflict-symptom options: avoidance, accommodation, competition, collaboration, and compromise (Montoya-Weiss, et al., 2001). The authors found that the use of intervening devices could mitigate the presence of "bad" conflict. It can be inferred from this study that the use of team charters and individual accountability ratings could be classified as the type of intervening devices that reduce "bad" conflict.

Closing

Interaction among students in the activities of online learning teams is an indispensable component for optimal learning in online classes. Successful online instructors must learn and apply a crafted management of learning teams in line with related research and best practices.

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Editor's Note: Catherine Meyer offers creative insights and wise advice for administrators and educators involved in designing new distance education degree programs. Meyer's discussion addresses the need to make informed choices about creating a curriculum that truly meet adult learning needs. The author stresses the importance of creating quality academic degree programs based on sound instructional principles and best teaching practices.

Adding Cupboards versus Building a House: The Difference Between Courses and a Degree Program

Katrina A. Meyer

Introduction

Distance learning is at a crossroads. From its earliest manifestations as correspondence schools, it has evolved into online learning available anytime, anywhere. It has grown, and continues to grow, in student enrollments, courses offered, and programs available. From 1997-98 to 2000-01, the U.S. Department of Education (NCES, 1999; 2003) tracked a growth of 134% in courses offered (from 54,470 to 127,400), 126% growth in enrollments (from 1,363,670 to 3 million), 128% growth in degree programs (from 1230 to 2810), and a 291% growth in certificate programs (from 340 to 1330) at U.S. colleges and universities. Undoubtedly, these figures have continued to grow, despite the recent difficulties in the economy. Of course, many of these offerings are not online: no data as yet has provided a clear picture of how extensive the online phenomena has become. But no distance education director doubts that the growth in student enrollments continues unabated and will likely continue to grow for some time to come, despite economic recessions, war, and downturns in state funding.

This growth is both an example of students "voting with their feet," but also stamping their feet – like impatient children – for more. Their demands have created the quandary of what to offer next. And here is our crossroads: we can offer new noncredit or credit courses or we can develop degree programs that take the student through an entire program of study in new ways. To put the issue simply, do we emphasize the offering of isolated courses or complete degree programs?

The situation is analogous to building a house: will we offer students a few new cupboards and a bookshelf or two, but no house, or a garage and an attic, but no house? Certainly, for some students who already have a house – or baccalaureate degree – a new cupboard is all that may be needed or wanted. They would prefer a remodeling of their house, as it were, or a new addition. They have a good career and want to stay abreast of the changes around them by adding modern conveniences to their home. Or they like learning new things and adding several more bookshelves to their existing home. Or they need a new home, but they have already built a house before and know what to do.

But others have no house, or are renting a house that is substandard. They need to prepare for a career or change the one they are in: individual courses, however helpful, may not give them the house they need to enter a new profession or career. Or they are living in their parents' house and need to begin to do the arduous work of learning and building their own house in preparation for adulthood and independence.

So why do we not have more degree programs available online? If there were 2810 distance degree programs in 2000-2001, this is but a small percent of the total number of degree programs currently available on the campuses of U.S. colleges and universities. Certainly we need more programs, but building houses such as these is easier said than done. Why?

Building Houses and Degree Programs

Building an online degree program requires a number of very time-consuming steps. Faculty must agree on the program (assuming that the online program is not a retread of an existing program), its learning outcomes, pedagogical approaches, assessment tools, technical approaches, and solve the issue of how similar or different individual approaches to teaching online are acceptable. It is an endeavor that is extremely difficult, and sometimes it is impossible. But, if that were not difficult enough, the courses or modules must be created, content digitized, documents loaded, exercises invented; for someone with training in a course management system, this is a lot of work -- for those without these skills, the tasks are easier said or listed than done. And these tasks must be accomplished when many faculty are already busy with many other essential tasks. This is nothing new, however, and it is not offered as an excuse or apology, just as an explanation that provides a few keys to solving the problem of not enough online programs. Time, especially release time or a rearranging of the time commitments or priorities of faculty, is essential for building curricula and courses, meeting deadlines, and locating the resources and skills necessary to build this particular house. Which may mean that additional staff is needed to help teach the faculty new skills, design the new courses, and create specialized parts of the program.

And however essential faculty may be for building this house, we cannot ignore the other services that light and heat the house, remove garbage and deliver mail, clean the streets when it snows, and provide mail, telephone, and cable TV service. These are the corollaries to the student services that allow students to find and use their house, pay for its upkeep and their room and board (as it were), get books to warm the bookshelves (this house will need lots of bookshelves), get access to the house's online journals, find ways to locate and make use of the knowledge in every nook and cranny, cupboard and attic, meet and make use of the guides to the house (the faculty), and prove their worth and ownership of the final house when they are ready to move out.

It may be that there will be students who – for reasons of maturity, lack of skill or motivation – cannot be a good tenant. They might live in a house, but rarely open the cupboards and only infrequently rummage through the books in the library or log on to its portal to online resources. They may trash the furniture or abuse their time in the house. They may be genuinely confused about how to get around and use the house, since it will likely be different from any house they have come to know in the past. But these students exist everywhere, and may be no more likely to frequent the online program than the on-campus program. Fortunately, screening devices exist to help students – and online programs – make more informed choices about the suitability of the student for the online learning world.

The question is, if we can wring one more analogy out of this house, whether the house will be built wisely – using the best building techniques and products available – and whether it will be built solidly and for eternity. Unfortunately, in this analogy, an online program built like a house to stand for 100 (or more) years is not a good thing, but will be a program slated to become an anachronism in a matter of months. No, this house must flex and twist, reconfigure itself, adjust to its tenants, add rooms continuously, remodel its layout and restructure its frame, move load-bearing walls and add skylights as well as tunnels or passageways between floors. It must, in other words, be organic, adjusting to students' learning needs, their new and revised knowledge, and the preferences of faculty. It would be a novel house, indeed.

Fortunately, using the Internet as building material for the house – providing the content for the shelves and the floors -- will likely keep the walls moving and the floors shaking. It also provides the means by which the house, disassembled into rooms and cupboards, courses or modules, can be delivered to the student looking for a house to inhabit.

This would also require a commitment on the part of faculty to keep the house up-to-date – flexing and moving in the appropriate directions – that mirrors the time commitment needed to

build the house in the first place. This means that solving the challenge of insufficient faculty time is a continuous problem.

The issue for the advocates of credit courses or cupboards is whether they can be assembled into a workable house. Having viewed a few amateur remodels, the answer is yes and no; some can and will build a house that might be eccentric but sound, others will cobble together a building that looks not so much like a house as a hobo city of cardboard boxes. Some students will manage to build a good house – even a mansion, perhaps – one that we would envy for ourselves. Another will leave the task before it can be finished. No doubt that a few rooms are better than none and a small house better than facing the elements without shelter or warmth. But how much better would a society be if its citizenry were housed in buildings on solid foundations and had light, airy interiors with elegant finishes throughout?

Of course, building houses (and educations) is difficult to do. Building a house is a relatively regularized process; we all remark upon how quickly a housing development takes shape, moving from concept and drawings to stakes placed in the virgin land, to bulldozing of streets and foundations, to wooden frames going up to form the first real sign that a house will be here, to windows, roofing and inside walls, plumbing and wiring, fixtures and furnishings, and finally, a yard. For the uninitiated, it goes by in a blur; for the craftsman, the process is clearer, with set steps in the sequence, a coordinated plan for all of the parties that must come together to make the blueprints into a real house, and an ebb and flow of professionals bringing their separate expertise to the final product. In a matter of months, you can move in and hang your paintings, place your furniture, and plant annuals in the beds.

Not so our online degree program. This house building exercise does not have the building industry's long experience, set procedures, and managerial expertise. Professionals with expertise in online instruction and pedagogy exist, content specialists are on staff, but they are not yet organized to produce the program quickly and effectively. Some would argue, and there would be some truth to their argument, that the best procedures are not all known and experimentation is therefore required. This makes the process highly tentative and prone to constant rethinking and revision. So the house that will be built will necessarily require an attitude of tentativeness, of evaluation and tinkering that more nearly mirrors the house that is needed: flexible, organic, and never quite done. In other words, what may appear to be a problem has created precisely the sort of product that is needed by an online program. This is fortuitous, even if unplanned.

Every Program Online?

If there is one thing we know, it is that more online degree programs are needed. A quick look at http://www.petersons.com might give you the impression that we have enough baccalaureate programs in business administration (for example). But of the almost 3,000 baccalaureate programs listed, only some 20 or so are fully online (this is based on data provided at http://www.petersons.com/dlearn, which certainly may not list all online programs). And if an undergraduate degree in business administration – a lucrative and high-demand specialty – is in this situation, how poorly do other fields fare?

You might argue, justifiably so, that not every degree program ought to go online, given its unique characteristics (either a need for face-to-face interactions or supervised assessments), high cost or low interest, or whatever. These are good points, and certainly pedagogically and economically sound. However, a case might be made to treat low-demand program areas in a similar fashion as orphan diseases. Pharmaceutical companies avoid research and drug development of diseases with a low incidence of occurrence. Their reasoning is the same: there is no money in it. This situation argues for coordination among institutions to decide who might develop such a program of limited appeal, avoiding too much competition among providers and

splitting the market into small, unprofitable segments. These would be very small houses, bungalows with novel shapes, and unique in their style and decoration.

But it is fair to ask, who actually builds the house? The faculty may build an online degree program to "house" a student's learning, but it is the student who builds their educational experiences into a house for intellectual habitation or professional competence. In fact, the work is collaborative and individual, tedious and stimulating, taking its worth from the efforts of both and the unique contributions of each. The house is built by faculty and student together, but it is the student who takes final possession of the building. And it is also a process of experimentation and failure, magical moments of intense insight separated by long periods of dreary work. In other words, while each nail must be pounded into the wood individually and cupboards dusted and windows washed, sometimes you can host a party with friends and celebrate your house with laughter and joy and accomplishment.

Conclusion

The house analogy has been useful: it clarifies some relationships while it obfuscates others, as most metaphors tend to do (Lakoff and Johnson, 1980). If an online degree program is truly like a house, then the metaphor will make our understanding of online education clearer and richer and help generate relationships that tweak our old knowledge into new twists and turns. But analogies also beguile us into ignoring what does not fit as we focus on the new and engaging. So we are wise to be cautious: the house may be a prison, the place of unhappy childhoods or worse, or a too-high mortgage that bankrupts our future happiness. It is best to wear our metaphors lightly.

But if our house analogy has been helpful, it is because we value our homes and our educational accomplishments. A cupboard, however useful, is not as useful alone as it would be if it were mounted to a wall of a two-story, three-bedroom home with a garage and basement.

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Editor's Note: Christine Uber Grosse has written a relevant and timely article on her research study involving six educators who were online instructors for an MBA degree program. The discussion covers important educational issues associated with traditionally oriented teachers who become online instructors. Additionally, the author provides excellent research material to assist others who are interested in pursuing a similar study. Grosse's discussion highlights the need for university administrators to consider innovative ways to reward faculty members who are teaching online courses.

How Distance Learning Changes Faculty

Christine Uber Grosse

Abstract

How do faculty change as a result of teaching a distance learning course? What new knowledge, skills, and attitudes do they develop as a result of their experience? How does work in distance education affect their teaching, service, and scholarship?

This study looks at how six professors in an Arizona business school changed as a result of teaching via distance. All taught in an international MBA program delivered jointly by Thunderbird, The Garvin School of International Management and ITESM, the Instituto Tecnológico de Estudios Superiores of Monterrey, Mexico.

Introduction

How does teaching via distance change faculty? What new knowledge, skills, and attitudes do they gain from the experience? How does it affect their classroom teaching, service and scholarship?

This study examines the cases of six professors who teach at Thunderbird, The Garvin School of International Management, a graduate business school that was ranked number one in international business education by *U.S. News and World Report*. All taught in the Global MBA program jointly delivered to Latin American executives by Thunderbird, The Garvin School of International Management and ITESM, the Instituto Tecnológico de Estudios Superiores of Monterrey, Mexico.

In its first year of operation, the Global MBA program had 115 students at four locations in Mexico. The majority were Mexican executives employed at about 90 firms. Half of the Global MBA courses were taught by Thunderbird faculty located in Glendale, AZ, while the other half were taught by ITESM professors in Monterrey, Mexico. Groups of students met at locations in Mexico City, Monterrey, and Guadalajara on Fridays and Saturdays for seven sessions to receive the class broadcasts via satellite. Two way interactive video connected students in Monterrey with the other sites and Glendale, AZ. The "invisible" students at the other sites could watch the professor and the lead class in Monterrey, and communicate with them via the intranet. Other class activities were conducted asynchronously over the intranet, in discussion groups, chatrooms, and via e-mail. Classes met on Friday or Saturday for seven sessions (Grosse 2001a; Grosse 2001b). Today the Global MBA program has over 150 students at nine sites in Mexico and Peru. For more information on how U.S. faculty members perceive online courses taught to Mexican students at the university, see Feinberg and Vinaja (2002).

Methodology

The information for this study came from interviews with six Thunderbird faculty members who taught in the Global MBA degree program. Two full professors, three associate professors, and an assistant professor participated in the interviews. Half of these had tenure. They taught the following courses in the distance learning program.

- Advanced Managerial Finance
- Business Communication
- International Finance and Trade
- International Negotiation and Bargaining
- International Political Economy
- Managerial Accounting and Profit Planning

The survey instrument appears in Figure 1. Interviews took place in the faculty member's office, and lasted from 60-90 minutes.

INTERVIEW QUESTIONS

1. What is your title?
2. Are you tenured?
3. What courses do you teach at Thunderbird? In GLOBAL MBA?
4. When did you teach your first distance learning course?
   What course? What technology did you use? What other distance learning courses have you taught?
5. Did you have to be persuaded to teach in GLOBAL MBA? Why did you agree?
6. What was your attitude toward distance learning when you started teaching? Now?
7. What major differences did you find between teaching in your regular classroom and in the distance classroom?
8. What adjustments did you have to make in your teaching?
9. What carries over from your distance learning work over into your regular classroom?
10. What new knowledge, skills, and attitudes did you develop as a result of your experience?
11. What's the most important thing(s) you've learned from teaching in Global MBA? What do you learn each time you teach Global MBA?
12. Why do you continue teaching in the program?
13. How has your role as a faculty member at Thunderbird changed?
14. How does Thunderbird view your teaching in the Global MBA program?
15. What short and long-term rewards did you receive?
16. What impact has your work in distance learning had on your teaching, service, and scholarship?
17. How has your professional life changed since you first taught via ALN?
18. What were the greatest challenges you faced?
19. What do you find most interesting about the experience?
20. Now which do you prefer-teaching via ALN or face-to-face in the traditional classroom?

Figure 1 Interview Questions

Differences between traditional teaching and distance education

The six faculty identified the following differences between teaching in a traditional classroom and via distance.

- Added complexity with distance
- Additional planning needed for distance
- Slower pace of instruction in distance
- Reduced flexibility due to teaching on tv
- Lack of feedback from one-way satellite tv
- Reduced interaction on tv instruction
- Technology's capabilities to reach students at a distance
- Online discussion groups added to learning
- Benefits of asynchronous aspects aided instruction

Adjustments in teaching

Clearly, teachers must make adjustments in their methods when using asynchronous instructional networks and other technologies. As Dillon (1989) found, "instructional telecommunications require changes in familiar teaching patterns and practices as faculty find they often must relinquish a degree of control over the teaching-learning process." Rockwell, Shauer et al (2000) also recognized that "instructors need to transform their teaching style, i.e. method, to better suit the new milieu."

In this study, the faculty commented on how they had to adjust their teaching methods for distance learning. For example, they realized they had to be more entertaining and theatrical on satellite TV. One person observed, "In order to engage student interest, you've got to do things you don't normally do. It's a very visual medium. That's the area I have to work on most, being an extrovert, an entertainer on camera." Back in the traditional classroom, he applied what he had learned about expressive body language in the satellite TV and used more facial expressions and hand gestures to liven up his face-to-face classes.

In their distance classes, the faculty enjoyed using chat and online discussion groups to communicate with their students. Online discussion groups were a useful forum for student questions and exchange of ideas. Almost all of the faculty considered the online discussion groups to be a positive feature of distance learning that allowed them to have longer, more focused discussions than in the regular classroom. In the discussion groups, students had time to think, read each other's comments, and then review their own answer before posting it. The faculty felt that this made for better quality discussions.

The asynchronous aspect of the distance learning courses helped faculty to get to know their students better, as they used e-mail more for communication. Instructors also got more information about how students were doing, and a better learning result.

One of the greatest adjustments facing distance faculty is the time needed to prepare and teach a distance class. It took the Thunderbird faculty more time to learn to use the different technologies, breakout groups, and online assignments. One professor monitored six online discussions and read 300 postings. Global MBA faculty also managed onsite facilitators as part of their duties. For one professor this involved fully scripting the facilitators' time with the students,

planning onsite discussion, assignments, and mini-tests, and providing guidelines for grading assignments. These were additional activities that he didn't have to do for his regular class.

Research by White and Myers (2001) also found that teachers using WebCT required significant time to learn the program, adapt materials, upload course data, and train students. Worry about the additional preparation time ranked as the issue of greatest concern for the teachers. A survey of National Education Association (NEA) members (Abacus Associates, 2001) showed that half (53%) of distance learning faculty spent more hours per week preparing and delivering the distance course than for a similar traditional class. Just 22% spent fewer hours on their distance class. Another survey conducted by the American Federation of Teachers (2001) found that distance learning instructors generally believed that course preparation took anywhere from 66% to 500% longer than similar preparation for a traditional class.

In the distance class, faculty developed more professional PowerPoint slides and videoclips because they had technical assistance and the need to have them ready two weeks before class. Some recycled the higher quality slides and videoclips in their on-campus classes.

The Sloan Consortium Report (Lorenzo and Moore, 2002) acknowledged that online faculty carry over some benefits of online instruction to the regular classroom. In the present study, the professors identified aspects of the distance education experience that transferred over to their regular classroom which included better PowerPoint slides, online discussion groups, posting of student work, and increased confidence from teaching the Global MBA students.

Adjustments in course design and testing

Most faculty members used basically the same course outline and content in their Global MBA and traditional classes, with minor adjustments to fit the format of the distance class. One faculty member did not see much difference in the curriculum except for the deliberateness and slowness that the format of the distance education class required. His problem sets and assignments were virtually unchanged.

Another professor used the distance class to break out of the tightly structured format of the course he taught on-campus, where all professors had to follow the same syllabus and give identical final exams. He welcomed the freedom of the Global MBA course structure, with seven weekend classes delivered via satellite, and a myriad of asynchronous ways to interact with students.

In terms of content, one instructor gained valuable stories and examples from the Global MBA students' negotiation experiences that she used later in her traditional classroom to illustrate key points and cases.

Most agreed that nothing was different about the testing in the distance learning class. However, one found that electronic correction of papers was challenging. Another wished for online testing rather than mailing in the tests from Mexico to Arizona.

Developing new knowledge, skills, and attitudes

For the most part, faculty gained new knowledge from their distance learning experience. Four developed a better understanding of how distance learning and various technologies worked, while three learned more about Mexico, its people, business environment, and culture.

Faculty also honed their skills in teaching via satellite TV, using online discussion groups, e-mail, PowerPoint slides, and building a virtual community. One learned how to handle large volumes

of e-mail as a result of the course. Several became more comfortable in front of the camera. They considered learning to teach on television in a time-controlled environment to be a valuable skill. Others valued the experience of learning how to direct online discussion.

Two faculty members believed that they didn't gain any new skills. One reported that nothing of his teaching style was different, only cosmetics had changed as a result of distance education. The other used pre-existing skills, and added nothing new.

Changes in attitude

Five out of the six people radically changed their attitudes toward distance learning after teaching in the Global MBA program. This reinforced findings by Beaudoin (2002) of faculty attitudes after a transition to distance education. In the present study, only one instructor still had serious reservations about class size (over 150) and the number of campuses (nine) involved. The individual was also disappointed in how little the distance learning experience counted toward tenure and promotion.

One faculty member was initially skeptical about what could be achieved via distance learning, but his experience changed his attitude. He was surprised at how much his Mexican distance students had learned. "In eleven years of teaching, I'd taught at top five business schools like Dartmouth. I looked at the final exams and couldn't believe what I saw. They were the best in all my years of teaching."

Another professor remarked, "I've developed great respect for distance learning, Thunderbird's IT team, and the Mexican executives." Another changed his opinion about what's possible in distance education. As a result of his Global MBA experience, he was impressed with the ability of technology to deliver learning value and realized that "we need not have synchronicity in distance and time to be effective teachers."

One professor still had mixed feelings about the use of technology for instructional delivery. Although impressed with the students, she had a problem with their being too comfortable at times in the satellite TV classes and how some paid their bills, used the phone, and wrote messages during class.

While one of the instructors had a very positive attitude toward distance education, he still had lingering concerns about workload and compensation issues. In his experience, working with the facilitators was another problem. When they were good, the system worked well. However, when they were bad, he found that the system became a nightmare.

Another instructor commented, "I'm really sold on distance learning. You can do quality teaching and get high-level material across. At first I thought it was for very low-level material. My idea of distance learning was someone sits at the terminal answering multiple-choice questions, going from module to module. I didn't realize you could teach thinking skills."

One person explained, "I'm definitely more positive toward distance education now. I used to think it was talking heads, now it's interactive video. I'm a fan of that and wouldn't have been before. I incorporate the asynchronous part in my regular class."

Most important lessons learned

Several instructors identified the most important thing that they learned from their distance education experience. For one, it was "that I could do it. Teach in a very challenging situation, and get the highest evaluations of the year from demanding executives, working with imperfect technology." The most important lesson for another was seeing that distance learning could be effective with considerable effort.

Two professors liked the fact that they always learned new things every time they taught in Global MBA. One discovered that the executives had more international experience than originally thought, and brought good international examples to class. Another instructor found the development of good organizational skills (necessary to teach the class) to be the most important lesson learned.

Why faculty continue teaching via distance

The faculty surveyed had a variety of reasons why they continued in the distance learning program. One cited the flexibility of the Global MBA class schedule as a primary motivator. He liked the freedom of teaching class on seven weekends, and the asynchronous nature of the rest of the course. Another liked the flexibility of not having to be on-campus during the week. One professor enjoyed the variety that the distance learning course gave to his normal teaching load.

A recent survey by the American Federation of Teachers (2001) asked members who had taught distance education if they would teach a distance learning course again. A significant majority, 169 out of 200 respondents, said that they would teach via distance again. Only 31 respondents said that they would not. The Thunderbird cases provide further evidence of the positive attitudes that many faculty develop toward distance learning after the experience.

Institution's view of distance faculty

The faculty had different opinions about how Thunderbird valued their participation in the distance education program. One felt that the institution viewed teaching in Global MBA very positively. For another, it was between neutral and plus, but definitely not negative. One professor felt that distance learning was viewed the same way as teaching any other class, neither bad or good. Overall, another instructor felt that people at Thunderbird valued the regular program more. One person believed that her distance teaching didn't count at all toward promotion and tenure.

Another faculty member believed that his success in the Global MBA meant something to the school and that colleagues and administrators paid more attention to the contribution. With a new compensation package in effect, one professor believed that the university demonstrated its desire to attract and keep the best faculty teaching in the Global MBA.

Faculty rewards

Faculty rewards and recognition play an important role in faculty satisfaction with distance learning. According to Melody Thompson of Penn State University, satisfaction "results when those teaching in online programs receive the personal rewards, institutional support and professional recognition they need to feel positive about what they do and to do their jobs well" (Educational Pathways 2002). A 1998 report by the National Center for Education Statistics found similar satisfaction levels among distance education teachers and their colleagues who teach on-campus, even though the online faculty had larger workloads. A SUNY study also found that major factors affecting faculty satisfaction involved teaching a more diverse student body and access to more opportunities for research, recognition, collegiality and professional development (Moore 2002).

All six of the Thunderbird instructors received short and long-term rewards from participating in the Global MBA program. Short-term rewards consisted of recognition and praise from Thunderbird's president, the Global MBA director, and program administrators in Mexico. Each professor received one course release for the first distance class preparation. In addition, Global MBA performance was factored into a faculty member's annual review. One person received recognition in a three-year review for an outstanding contribution to the school with his successful teaching in the Global MBA program. One professor won a teaching award for outstanding professor, and consequently received greater visibility in the Thunderbird

community. In terms of financial reward, teaching a Global MBA course counted the equivalent of 1.5 courses with class size of around 150 people.

With respect to long-term rewards, several faculty members recognized the benefits of gaining technical expertise and being on the cutting edge of new technologies. Others remarked that the distance learning experience had increased their self- confidence. Others reported that they gained increased self-confidence from teaching in the Global MBA. "If I can teach executives in another country at a distance successfully, I can do anything," one said.

Impact on service

Did the distance learning experience have an impact on the faculty's service and scholarship? Teaching in the Global MBA had an effect on half of the participating faculty members' service and/or scholarship at Thunderbird. Three faculty members added to their service record as a result. One served as chair of the Distance Learning Education Committee for TESOL (Teachers of English to Speakers of Other Languages), and became a member of the TESOL Technology Committee. Another faculty member became Assistant Director of the Global MBA. A third increased her service on technology-related committees at Thunderbird.

Impact on scholarship

Three faculty members reported that teaching in Global MBA helped their scholarship. One professor published three book chapters and three articles related to the distance education experience in Global MBA. As a result of teaching the Mexican executives in the distance program, another instructor has developed excellent resources and contacts for his research in Mexico. Invaluable to present and future research efforts, the professor now has hundreds of former students in Mexico, where good contacts make a difference in accessing information and people. A third faculty member has co-written two case studies on Citibank Mexico at the request of the President of Citibank Mexico, a member of the Global MBA governing board.

Major challenges

Gerson (2000) identified five faculty concerns that created barriers to successful online education at Johnson County Community College: 1) insufficient online technical support; 2) insufficient support for development of DL courses; 3) uncertainty regarding ownership of DL course materials; 4) uncertainty about released time and/or pay for development of online courses; and 5) uncertainty about workload issues. Faculty in the current study identified other challenges that they had to overcome.

Juggling all the different course components presented a major challenge to one professor. Another was challenged by having to remember to look into the camera for the entire satellite TV class. This professor also learned how to take a straight lecture and convert it into something more visual for the television medium. Still another's greatest challenge was learning to keep the students interested for the long hours of the satellite class. He succeeded by varying the class program with videos, and using body language more effectively.

The biggest challenge for one instructor was organizing himself to teach via distance. Since he liked to be free-flowing in class, the satellite TV classroom presented special challenges. Everything had to be orderly on television, in contrast to the more impromptu traditional classroom. He compared the difference between the distance and regular classrooms with going to the Coast Guard Academy (where everything is strictly regulated) versus attending Princeton (where things flow freely).

Teaching preference

Given a choice, would the Thunderbird faculty choose distance learning or face-to-face traditional instruction? To the question one responded, "live, if I had to make a choice. I like to see the gleam in the student's eye. I like to see the body language!" Another cited a preference for face-to-face instruction with its non-verbals. In all, four faculty preferred face-to-face traditional instruction to the distance classroom.

One person preferred face to face because it let him see the reactions of the students, feel their energy, and receive immediate gratification. He explained, "In distance learning you're throwing this [instruction] out in a void. You don't know the reaction. So I didn't know how I did." He found out a year later, when he received the outstanding faculty award for the GLOBAL MBA program.

In Dillon's 1989 study, faculty considered "lack of contact with students" as the factor that most adversely affected instructional quality and personal satisfaction. Bower (2001) also considered personal interaction with students to be "one of the most gratifying aspects of teaching. An opportunity to see the spark of understanding begin to glow in the eyes, to see confidence build, these are the 'big payoffs' of teaching for many instructors. The technology interface of distance learning often denies them this opportunity."

One Thunderbird instructor didn't have a preference, and recognized that both types of classes had their strengths and weaknesses. Still another faculty member replied, "I'm happy with both of them."

Conclusions

In conclusion, the six cases of the Thunderbird faculty show that significant change occurred in their professional lives in the aftermath of teaching in distance education. They grew in many ways and developed new knowledge, skills and attitudes that they believed would serve them well in their careers. They were able to transfer knowledge and skills from the distance learning experience to their traditional classrooms. They gained organizational expertise, improved PowerPoint slides, and strengthened teaching and presentation skills. They developed greater respect for the technical expertise and business savvy of their Mexican students, and made important new contacts in the process.

Through the Thunderbird experience, they expanded their beliefs about how people learn, and what the limits are and are not. In the process, their own self-confidence as teachers grew. In terms of institutional rewards and recognition, the efforts paid off for most of the faculty, although not always in the ways they expected.

For these six faculty at Thunderbird, The Garvin School of International Management, working in distance education brought about learning, professional growth, and changes.

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Editor's Note: Jason Huett shares a detailed analysis of email as a potentially effective technique to provide regular student feedback. Distance educators want to provide their students with accurate and timely assessment information but tight time constraints makes this more difficult. Huett offers research studies and creative ideas to help online instructors develop instructional plans that wisely use emails to foster productive communication patterns between instructors and their students.

Email as an Educational Feedback Tool: Relative Advantages and Implementation Guidelines

Jason Huett

Abstract.

Research into the pedagogical benefits of email is gaining momentum. The ubiquitous use of email for feedback in the classroom is lending the medium a new level of credence as an educational tool. Assuming that email will only continue to grow in popularity, it behooves one to develop some guiding principles for the implementation of this medium. Currently, there is extensive research into the role feedback plays in education. However, there is little research outlining practical advice on how best to use email as a feedback tool. This article examines the nature of feedback in education, discusses technology implementation issues of email as a feedback and communication tool, and provides a list of suggestions for incorporating email into the classroom to make the most of the medium's relative advantages.

Keywords: email; feedback; technology implementation; relative advantage; adult learning; computer-mediated communication; cooperative/collaborative learning; distance education; distributed learning environments; improving classroom teaching; interactive learning environments; learning communities; pedagogical issues; post-secondary education; teaching/learning strategies.

Introduction

One cannot underestimate students' desire to communicate, and learners in distance education environments are no exception (Leh, 2001). With its ubiquitous nature, relative low cost, global reach, speed, and flexibility, email is becoming the communication choice of many. It seems only natural, given these features, that researchers are looking to email as a promising instructional and learning tool. However, its strength as an educational tool relies solely on constructing a solid email-based environment and a pedagogically sound message. If one is going to integrate email communication in the face-to-face or distant classroom in the hopes of delivering timely and valuable feedback to students, one needs to understand the concept of feedback and how it functions. The purpose of this paper is to briefly examine the nature of feedback in education, to discuss the use of email as a feedback and communication tool, and to provide a list of suggestions for incorporating email into the classroom.

Feedback

That feedback has an influence on learning is indisputable and undeniable, and feedback's varying roles in instruction are heavily researched concepts (Mory, 1992). Understanding how feedback facilitates, and, in some cases, hinders transfer of knowledge is essential to creating effective instruction. Researchers have focused on the many aspects and roles of feedback in hopes of developing some synthesis that will increase learner performance and improve instruction. Researchers such as Bangert-Drowns, Kulik, Kulik and Morgan (1991), Brinko (1993), Clariana, R. B., and Lee, D. (2001), Clariana, R. B., Wagner, D., and Rohrer-Murphy, L.

C. (2000), Kulhavy (1976), Kulhavy and Stock (1989), Kulik and Kulik (1988), and Mory (1992) to name only a very few, have sought to discern the complex role feedback plays in learning. While many studies have been convincingly conducted trying to ascertain how feedback best works in certain circumstances, a consensus has yet to be reached in most, if not all, areas, and, as Clariana (2000) writes, "There are a number of unanswered questions and perhaps even more unquestioned answers"(¶ 2).

What is Feedback?

Feedback has been defined in a variety of ways. Feedback can be seen as mechanistic: "the return to the input of a part of the output of a machine, system, or process (as for producing changes in an electronic circuit that improve performance or in an automatic control device that provides self-corrective action)" (Merriam-Webster Online Dictionary). Feedback can be defined more generally as "knowledge of one's performance provided by an external agent" (Delgado and Prieto, 2003, p. 73). That seems simple enough. However, the problem with more mechanistic or general models is that human beings can make a simple process unpredictable and complicated.

If we look at basic communication models, then feedback can be seen as "a special case of the general communication process in which some sender (hereafter referred to as a *source*) conveys a *message* to a *recipient*" (Ilgen, Fischer and Taylor, 1979, p. 350).

From the aspect of the behaviorist, feedback is primarily concerned with reinforcing correct responses (Kulhavy and Stock 1989; Mory, 1992). This idea of reinforcement comes directly from Skinner's behaviorism research. There is often an emphasis on changing behavior to achieve desired outcomes and to meet established criteria that can be measured on such instruments as standardized exams or other performance measures. In education, this often takes the form of drill and practice, habit-breaking, and reinforcement through rewards. However, such an cut-and-dried information-only approach does little to explain the complex nature of information *processing*.

From a cognitive perspective "feedback is regarded as a source of information necessary for verification, elaboration, concept development, and metacognitive adaptation" (Narciss, 1999, p. 3). In a review of Benjamin Bloom's works, Thomas Guskey (2001) finds that feedback should be diagnostic, prescriptive and appropriate to the students' level of learning. Pioneers of the field Kulhavy and Stock (1989) define feedback as information consisting of two components: verification and elaboration. Verification is a simple determination of the correctness of a response; it is either right or wrong. Elaboration is information that guides the learner toward the desired response and can be classified as task-specific, instruction-based, or extra-instructional. Several research studies hold that elaboration feedback is more effective than simple verification feedback for promoting learning gains (Bangert-Drowns, Kulik, Kulik, and Morgan, 1991; Pridemore and Klein, 1995). However, like much feedback research, these assumptions are not without critics and many studies have found just the opposite (Mason and Bruning, 2001; Merrill, 1987; Mory, 1992). Butler and Winne (1995) find that feedback can be both internal and external and must be goal-directed to be effective.

Whether one approaches educational feedback from a behaviorist or cognitivist perspective, Bangert-Drowns, et al. (1991) remind one that "any theory that depicts learning as a process of mutual influence between learners and their environment must involve feedback implicitly or explicitly because, without feedback, mutual influence is, by definition, impossible. . ." (p. 214).

The Role of Feedback in Learning

Clariana, Wagner and Murphy (2000) insist that learning "involves the interaction of new information provided by instruction with existing information already in the learner's memory" (p.5). Narciss (1999) suggests feedback's role in the learning process is not simply information processing, but a more complex milieu with feedback having an influence on the learner's

affective and motivational processes. Bloom (1976) listed feedback along with cues, participation, and reinforcement as one of his four elements to determine the quality of instruction.

It is generally agreed that feedback is an important construct for improving instruction and performance (Clariana, Wagner and Murphy, 2000; Kulhavy and Stock, 1989; Mory, 1992; Panasuk and LeBaron, 1999). However, even this most basic concept is subject to debate. Some researchers point out "it is impossible to give an affirmative answer to the general question of whether feedback improves performance" (Delgado and Prieto, 2003, p. 8). Kluger and DeNisi (1996) find that over 1/3 of feedback interventions actually weakened performance. Mory (1992) finds that simply providing feedback is not enough: "Feedback can promote learning if it is received mindfully. However, it also can inhibit learning if it encourages mindlessness. . . " (p. 7). Kulhavy and Stock (1989) report that even after decades of research one cannot say for sure how feedback works in instruction. As one can see, there is no great consensus regarding how feedback best serves instruction.

Feedback is often subject to classification schemes outlining inherent characteristics. Carter (1984) writes of feedback having four characteristics: function, timing, schedule, and type. Brinko (1993) suggests that understanding feedback requires addressing the who, what, when, where, why, and how of feedback method. Butler and Winne (1995) assign five functions to feedback: 1. Confirming conditions; 2. Adding information; 3. Replacing or overwriting prior knowledge; 4. Tuning understandings; 5. Restructuring schemata. The classic Kulhavy and Stock model (1989) describes the feedback process as consisting of three cycles:

In Cycle I, a task demand is presented and the learner receives information from the task, processes this information, and produces a response to the task. In Cycle II, feedback is presented and is processed by the learner to yield any response corrections. Finally, in Cycle III, the original task demand is presented again as a test item, which is processed and responded to by the learner to produce a posttest response. (Mory, 1992, p. 7)

Bangert-Drowns, et.al. (1991), in a synthesis of the literature, assign a five-stage model to the feedback cycle where the learner moves from his initial state through the states of activity, response, evaluation, and adjustment-respectively.

According to Mason and Bruning (2001), the literature supports eight common levels for feedback: 1. No feedback; 2. Knowledge of response; 3. Answer until correct; 4. Knowledge of correct response; 5. Topic contingent; 6. Response contingent; 7. Bug related; and 8. Attribute isolation (¶ 9). All of these characteristics can be said to have merit and are worthy of consideration. A review of the research surrounding the nature of feedback and feedback's role in education reveals a complex and indecisive picture. However, much of what is presented here is worthy of contemplation when moving into the technology arena with feedback through email.

Feedback Through Email

Email can be a wonderful tool for delivering feedback to students. Once a basic understanding of feedback's role in learning has been established, one can begin to focus on how best to take advantage of the pedagogical functions of the communication medium. There is little doubt that email is changing how we communicate and learn. For example, in an investigation of the effectiveness of email as a communication and instructional aid between instructors and students, Yu and Yu (2002) found "empirical evidence supporting the usefulness of e-mail as a promising aid to promote student cognitive growth pertaining to computer knowledge and skills" (p. 123).

Tao and Boulware (2002) suggest that email communication benefits teachers by "identif[ing] instructional focus and tak[ing] advantage of instructional moments to fit the developmental

needs of their students in authentic situations" (p.288). They also find that email motivates learners, encourages authentic communication, and creates new learning opportunities.

Smith, Whiteley and Smith (1999), over the course of three studies, conclude that email is a "viable alternative means of course delivery" (p.24). Debard and Guidara (2000) extol the need for better and more frequent use of asynchronous communication in the higher education classroom. They find that asynchronous communication, such as email, can be adopted to meet Chickering and Reisser's seven principals of effective teaching.[1] They stress that email can increase faculty-student contact resulting in improved student involvement and motivation. Debard and Guidara (2000) also point to email as a source of more intensive student interaction that can lead to deeper, more active, and more engaged learning. They cite research which shows "an average response in an electronic discussion was found to be 106 words while the average in-class response was only twelve words" (p. 225).

In a qualitative case study of undergraduate students in an online course, Vonderwell (2003) finds that email allows for improved communication and gives students the opportunity to ask more questions of their instructor. She also stresses the use of email can create a sense of anonymity that potentially allows for greater participation by shier students.

In a study investigating the appropriateness of computer-mediated communication (CMC) in distance learning, Leh (2001) found that "CMC was beneficial for communication and learning and that participants were in favor of the use of CMC" (p. 126). In a follow-up study by the same author, Leh (2001) found the positive impact of CMC increased over time.

In a large scale trial study of undergraduate students solely taught using electronic communication conducted at *The Open University* in the United Kingdom, Carswell, et al. (2000) provide a summary of gains:

- Faster assignment return; more immediate feedback;
- Robust model for queries, with greater perceived reliability;
- Increased interaction with tutor and other students;
- Extending learning experiences (e.g., problem-sharing with other students) beyond the tutorial; and
- Internet experience (p. 44).

They also found that learning outcomes were comparable, that students' experiences were largely favorable and an experience ". . . they wished to repeat—a major factor in maintaining the enthusiasm and motivation of distance education students. . . " (Carswell, et al., 2000, p. 45). According to Baron (1998), email can be seen as an "ideal tool for building and maintaining social relationships" (p.155).

Email use in the classroom, both local and distant, is not without caveats. Carswell, et al. (2000) finds that inexperience is an obstacle to internet-based classroom models. Interestingly, they cite cultural inexperience as a bigger obstacle than technical inexperience because the asynchronous environment requires a shift in communication norms, a sensitivity and attunement to internet etiquette and conventions, as well appropriate communication expectations.

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[1] Chickering and Reisser's seven principles of effective teaching: 1. Encourages student-faculty contact; 2. Encourages cooperation among students; 3. Encourages active learning; 4. Gives prompt feedback; 5. Emphasizes time on task; 6. Communicates high expectations; 7. Respects diverse talents and ways of knowing (cited in Debard & Guidara, 2000, p. 221).

Using email in the classroom also requires a certain level of technical expertise and considerable technical support (Carswell, et al., 2000). Training and access are also factors. Both instructors and students need to be oriented to the email system and its many features. The campus must have in place an infrastructure with access to all essential hardware and software (Yu and Yu, 2002). Email communication can be time consuming and often means extra work for professors (Debard and Guidara, 2000).

Email can heighten levels of anxiety for some people (Yu and Yu, 2002). Smith, Whitely and Smith (1999) list students' willingness and ability to use the technology, the largely text-based nature of the medium, and the loss of nonverbal communication as three disadvantages to the use of email for classroom correspondence. Woods and Keeler (2001) cite research highlighting the potential social negatives of email use such as user isolation, user depression and loneliness, and the potential lack of a learning community. Bloch (2002) is also concerned about the social aspect of email and finds that misunderstandings and conflicts can abound without a face-to-face context, and that language use and "flaming"[2] can also cause problems: "Cyberspace allows for speech to be used for building social relationships, for creative play, or even for resistance, but it can also be used for harassment. . .it is important to understand how email can affect traditional social relationships in a classroom" (p. 120).

Vonderwell (2003) finds that students can be uncomfortable interacting with people they do not know and have never met. She also cites students' discomfort in the delay of immediate feedback and communication and perceived separation of the instructor.

Debard and Guidara (2000) cite how the user's perceived anonymity could result in potential encouragement for negative comments and criticisms that one might not offer in a face-to-face setting.

For better or worse, email is growing as powerful educational and communication force. With this integration comes the opportunity for a complete reconceptualization of the delivery of education. Educators must make the commitment to integrate technology into the curriculum. Without a firm commitment and a concerted effort, the potential of this technology will not be realized (Leh, 2001).

Implications for Teaching

Deciding how best to use email in a particular classroom setting is not an exact science. However, the literature and personal experience can guide practice. What follows is a list of suggestions or guidelines gleaned from the research and from my years of experience for effectively using email in the classroom. Many of these suggestions relate directly to improving student-to-student, and student-to-faculty feedback in manners that enhance instruction. In the deployment of an effective email as feedback program there are three phases for consideration: (a) planning before the class starts, (b) using email after the class has begun, and (c) the content of the actual email messages.

Before the Class Starts-Planning to Use Email

Preparation is key. Faculty need to understand how the technology operates and make a commitment to use it. Without at least a basic understanding of the technology involved and a clear plan for its use, the relative advantage of email will be lost. Also, for email correspondence and feedback to be effective, one must plan assignments early and, to minimize delay of response,

[2] Posting or sending a deliberately confrontational message via newsgroup, e-mail, etc., usually in response to a previous message (Guide to internet terms: a glossary).

make sure all assignments are clear and explicit. In addition, I suggest instructors create the following:

- A list of places on the campus and throughout the area where students may access the internet to cut down on hardware and software issues. Wireless internet and computers are often available throughout college campuses, in coffee houses, in public libraries and other areas.
- A consistent system for organizing and archiving email. This is key to managing large volumes of email and provides for easier access. Most current email management programs have this built in (Wallace and Wallace, 2001).
- An information page (webpage) about the instructor and any teaching assistants that local and distant students can access. If a large majority of communication will not occur face-to-face, then such a website can help provide students with a greater sense of community.

After the Class Has Begun-Using Email

If there is one lesson to be learned about email use the classroom, it is this: provide feedback in a prompt and consistent manner (Debard and Guidara, 2000). This idea of *prompt* cannot be over-emphasized (Yu, 2002, p. 123). Students need quick turn around on their inquiries. Also, make an effort to answer every email even if it is with a simple "thank you" or "I got it" or "nice job" or "see me." This will cut down on the number of times students call to ask if an email correspondence or attached assignment has been received. Such small gestures go a long way toward alleviating student anxiety.

Studies have shown that frequency of asynchronous responses (email) tends to decrease and response time tends to increase as the semester progresses (Vonderwell, 2003, p. 84). Instructors should try and avoid this *late semester lag* and keep frequency of responses and response time steady throughout the semester.

Once the class has begun, create and maintain a Frequently Asked Questions (FAQ) page. This will be a time-consuming task at first, but later classes will really benefit from the effort. Each time one answers an email pertaining to a class question, one can copy and paste the question and response into a *Word* document. After a few semesters, one will have an extensive list accessible to students that answers a majority of their questions. Also, create a class "alias" list for group emails and encourage students to create their own aliases of class contacts (Wallace and Wallace, 2001). Again, such efforts go a long way toward increasing student comfort and sense of community.

Faculty must take a lead in encouraging active student participation and take a proactive role in getting students involved in the technology (Tao and Boulware, 2002) as students "will not collaborate unless collaboration is structured into the course" (Vonderwell, 2003, p. 87). One way to accomplish this is to have collaborative exercises early on that require synchronous and asynchronous components to avoid the "creepy" factor (Vonderwell, 2003) i.e., students feeling uncomfortable communicating with someone they do not know. One suggestion is to use dyads and/or icebreaker activities to start dialogue and familiarize students with the technology; introduction and orientation sessions to all the available communication features are also needed (Vonderwell, 2003; Yu and Yu, 2002). One specific suggestion is to run an "email-test" exercise at the beginning of the class that includes how to deal with attachments. This would also be an appropriate time to point students to the aforementioned photo and information page, so students feel that they "know" their instructor.

There are many possible problems areas one may come across during the course of the semester. To avoid these, instructors can do the following to help keep things running smoothly:

- Address the issue of virus protection and provide information where antivirus programs may be purchased, downloaded or acquired for free (many universities provide free antivirus software).
- Address the issue of *spam*[3] and make sure students understand how to use filters so class emails will not be mislabeled as spam.
- Be wary of *time stamp* fraud. Techno-savvy individuals can go in and change the date and time of their email correspondence to make it look like they sent the assignment at a time of their choosing so instructors should check their email regularly.
- Take an active hand in controlling flaming and set clear communication guidelines for students. Also, take the time to explain *netiquette*[4] rules (McKeage, 2001).

In the Actual Email Correspondence

In the email, warm and friendly is the name of the game; keep email and chat replies as warm, personal, friendly and positive as possible. Cold, impersonal and task oriented electronic communications, if overused, can alienate students and detract from the online community. Use the student's name in the email correspondence. If the email is long, repeat the name a few times. This helps put students at ease and makes the asynchronous environment seem more personable. In terms of social presence, it is also a good idea to use acronyms and emoticons to help provide social cues (Leh, 2001) and to limit misunderstandings and miscommunications (Woods and Keeler, 2001). Some research also indicates that adding brief audio of the professor or video attachments of related content to emails may foster a greater sense of community and strengthen social relationships (Woods and Keller, 2001). Much of the nuance of face-to-face communication is lost on email, and these suggestions can help improve the chances that the feedback is received by the student as intended.

If most of the class communication is going to occur in an asynchronous format, there are some areas where the instructor may need to take special care. Instructors should:

- Be aware of, and sensitive to, the fact that members of your online audience may not be native language speakers.
- Remember, emails are a written record; they are not like phone calls. One may be held accountable for anything put in writing.
- Watch spelling and grammar in email messages sent to students to help maintain a sense of professionalism (most email programs have spell-checkers built in); however, grammar rules can be relaxed in chat sessions and allowances can be made for students' grammar and informal style in email correspondence. There is some debate about the issue of informal versus formal communication. Many people feel that the informal correspondence in email is perfectly appropriate.

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[3] "Unsolicited "junk" e-mail sent to large numbers of people to promote products or services. Sexually explicit unsolicited e-mail is called "porn spam." Also refers to inappropriate promotional or commercial postings to discussion groups or bulletin boards" (Guide to internet terms: a glossary).

[4] "The informal rules of Internet courtesy, enforced exclusively by other Internet users" (Guide to internet terms: a glossary). For a great summary of the core rules of netiquette see http://www.albion.com/netiquette/corerules.html

Discussion of Philosophical Perspective

It is clear that email correspondence in the educational environment provides many relative advantages such as speed of delivery, improved and more immediate communication, freedom from the constraints of location and time, potential for increased interaction, development of writing skills, decreased social isolation, increased internet experience, and extended learning opportunities, to name a few.

From both a methodological and theoretical/pedagogical perspective, Roblyer and Knezek (2003) lucidly outline the criticisms that technology research is facing. Due to the complex nature of the medium and the relative high costs associated with implementing technology initiatives, it is important to focus research efforts on areas that can improve efficiency and depth of instruction. I agree with Roblyer's and Knezek's (2003) call to focus research in the areas of relative advantage and improving technology implementation methods.

From a technology implementation perspective, what I have attempted to provide here is a general outline for how email may be used to greater effect and efficiency as a feedback tool to improve student achievement and satisfaction with courses. Hopefully, this in turn will result in increased student retention.

While this article does not detail a specific study that can lie claim to email as superior to other forms of communication, I feel that the ubiquitous nature of email lends it unique characteristics and capabilities that are worthy of further study and consideration. Gilbert writes that the ". . . course-related use of email is becoming the single most powerful force for integrating information technology into teaching and learning" (1996, cited in Smith, Whiteley, Smith). Email is a growing feedback system in education, and Cohen reminds one that this "component (feedback) is one of the more instructionally powerful and least understood features in instructional design" (1995, p. 33). If one assumes this to be true, then more research is needed to determine to the potential educational advantages and disadvantages of this communication medium.

It is a hope of this researcher that these guidelines will find a place in future studies and bear fruit when it comes to improving future practice.

Conclusion

The ubiquitous use of email for feedback in the classroom is lending the medium a new level of credence as an educational tool. Assuming that email will only continue to grow in popularity, it behooves one to develop some guiding principles for the implementation of this medium. The guidelines presented here should be viewed as suggestions to consider when asynchronous communication is used to communicate with students.

This article outlines some practical measures that can be taken to highlight the advantages of email while limiting the inherent drawbacks. Understanding the advantages of email can increase the likelihood of student achievement and satisfaction and promote learner retention. The successful use of email in the educational arena will be largely determined by how well it meets the identified needs of the learner.

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Editor on Editor's Note: Dr. Brent Muirhead is Senior Editor, Online Learning, for this Journal. Brent makes substantial contributions behind the scenes in addition to his personal commitment to research, publication and teaching. As Guest Editor for this issue for this issue, he brings additional authors and perspectives.

Interaction is a powerful facilitator for learning, and this is especially true for online learning. A wide variety of teaching models are available, ranging from Bruce Joyce's *Models of Teaching (Allyn & Bacon) for* classroom learning, to Guy Bensusan's peer learning and Curtis Bonk's application of interactive multimedia.

Recognition of the ability of adult learners to assume responsibility for their own learning puts a new spin on the role of the teacher as facilitator of learning. Teacher colleges are recognizing this paradigm shift and making changes for the next generation of classroom teachers. Colleges and universities equipped for online teaching and learning are using new technologies to support their regular programs of instruction.

The majority of professors in higher education have little or no formal training as teachers and many continue to emulate the teaching models of previous generations. The good news is that increasing numbers of instructors attend workshops to learn about and use these new technology tools. In the process, they are exposed to opportunities for teaching and learning that did not exist a generation ago.

Donald G. Perrin, Managing Editor

Encouraging Interaction in Online Classes

Brent Muirhead

Introduction

Promoting and maintaining interactivity within online classes continues to be a vital concern among distance educators. The current discussion will explore instructional strategies to foster online interaction.

Instructor Challenges

Research literature continues to affirm the central role that online instructors play in creating a dynamic and academically effective learning environment. Palloff and Pratt (2001) state "the key to success in our online classes rests not with the content that is being presented but with the method by which the course is being delivered" (p. 152).

A major challenge for today's online instructors involves creating a consistent level of interaction that fosters genuine learning and cultivates a community atmosphere. This will require developing strategies that provide guidance and instruction for individuals and student groups. For instance, the instructor must decide how often to provide specific feedback on student work and dialog comments. Instructors can sometimes struggle in establishing an effective online presence because they are experimenting with their intervention strategies.

Online instructors strive to provide intellectually stimulating student dialogs and quality learning experiences which should involve productive individual and learning team activities. Instructors need to foster a secure online setting that affirms diversity of thought and critical inquiry into the subject matter. Student discussions should be monitored to insure that students avoid being excessively polite which will undermine genuine sharing. Teachers can model appropriate sharing of messages and establish an online tone that encourages genuine questioning and reflection. Veteran online instructors have learned how to effectively create an online tone that matches the needs of their students. The wise instructor will offer emotional support at times and there will be other moments when students will need an intellectual challenge. Garrison and Anderson (2003) recommend establishing the following online presence:

- a feeling of trust and being welcomed;

- a sense of belonging to a critical community;
- a sense of control;
- a sense of accomplishment;
- a willingness to engage in discourse;
- a conversational tone; and
- a questioning attitude (p. 81).

Research studies have identified three basic student characteristics that are often found in successful online learners: internal locus of control, self-motivation and independence. Students who view their academic accomplishments due to their own work are more likely to be successful in online classes (Vrasidas and Glass, 2002). In contrast, even graduate students can struggle with a lack of confidence in their learning abilities. A vital factor to successful online learning is the student's perspective on the teacher and the learning environment. Shearer (2003) observes "student self-perception has as great an impact on observable interactivity levels as the instructor's teaching style or the instructional design" (p. 9). The psychological readiness of students can be diminished by a diversity of factors and life events:

- lack of prerequisite subject matter knowledge
- inadequate instructional feedback on assignments from teachers
- absence of clear goals for pursuing their degree program
- ineffective study habits
- stress of multiple roles.

Distance education programs vary in the quality of their classes and some offer poor learning experiences characterized by poor course design, inappropriate content or sequencing of learning activities and inconsistent teacher feedback (Janicki and Liegle, 2001). Examining research studies on student interaction with course content is often complicated by a multitude of variables. Thurmond (2003) highlights five factors that can influence student perspectives on their ability to learn course curriculum:

- continuous contact with the content- enables students to gain mastery
- clarity of course design – the structuring of the materials and the manner in which it is sequenced will help make it both accessible and easy to understand
- time – adequate time is needed for students to engage with the materials and discourse and to reflect on their learning
- participation in online discussions – this enables students to learn by constructing meaning and knowledge through dialogue and from other perspectives
- mode of delivering course content – appropriate sequencing of content and learning activities will enhance interactivity and make learning more effective and meaningful.

Strategies to Enhance Interactivity

Distance education represents a unique context for the teaching and learning process. Traditional educators do not always understand the essential instructional changes that both teachers and students must undertake to make it a successful venture. Spitzer (1998) notes that "those involved in distance education grossly underestimate the difficulty involved in changing deeply entrenched teaching and learning habits, and consequently we grossly underestimate the difficulty of changing from a traditional classroom environment to a distance learning context" (p. 53). The author shall share instructional strategies and insights which can promote interaction and authentic educational experiences.

Promote Critical Thinking

Today's distance education classes rely heavily upon text-based communication.

The emphasis is upon self-directed learning and represents a definite commitment by educators to affirm the autonomy and independence of adult students. Students use written comments to share conceptual knowledge with their classmates and teachers. The reading and writing process does promote cognitive and metacognitive skills due to the opportunity to reflect before responding to comments (Hannafin, Hill and Land, 1997). Online dialog over written messages can offer more in-depth intellectual inquiry than face-to-face conversations which usually encourage immediate responses (Blanchette, 2001). Instructors must strive to develop questions that are interesting and reflect a diversity of ideas to stimulate online dialogs. Bender (2003) notes "…your aim should be to make the class an incredible experience, one that the student would not want to miss" (p. 69).

Online educators are faced with various barriers to quality dialogs such as having a discussion that is not focused or ones which are intellectually shallow. Instructors must use conversational techniques to sharpen dialog focus by providing direction, offering commentary that sorts ideas according to their relevance and highlighting primary student contributions. The dialogue can be enriched by instructors who offer a diverse range of questions that cause individuals to examine their assumptions, beliefs, ideas and rationale. Instructors should post comments that indicate that they honor a multiple of perspectives (Collision et al, 2000).

Relevant and Engaging Lectures

Traditional instructors are sometimes placed into difficult circumstances when they are required to teach an online class with little or no formal training. Often, they must post their lecture notes for their students to read while striving to facilitate a discussion based on the lecture notes. Also, it places pressure on the teacher to produce an excellent lecture because students will have plenty of time to examine the lecture and discuss its contents. Lectures can be used to personalize the learning environment when instructors develop a conversational style that reflects their personality. Students can acquire a stronger emotional connection to their instructor when they offer personal illustrations and professional experiences. Additionally, it is wise to include diverse discussion questions with lectures that explore vital content issues and enable students to refer to their work and life experiences. Shearer, (2003) stresses "without the proper use of sequence, pace, and feedback, the learner perceives little control over the learning environment, and without other means of timely interaction with the instructor (e.g. by phone or fax) the psychological distance may feel immense" (p.19).

The University of Phoenix (UOP) devotes attention to the lecture preparation to help faculty candidates during their training and mentoring process. UOP operates from a Practitioner-Faculty Model that encourages faculty members to share their expertise from their education and work experiences. Instructors learn to translate their knowledge and wisdom into a lecture that effectively communicates the latest research and theories with their professional experiences. It takes time to create quality lectures which reflect creativity and capture the imagination and attention of students. The lecture should be written in manner that is easy to read but instructors should avoid being simplistic in knowledge content.

Biographical Posts

Research studies support the practice of having instructors and their students share biographical posts during the first few days of class. An informative biography will highlight both professional and personal data that offers insights into the individual's life. It is simple procedure that can humanize the online class by helping students learn more about their teacher and colleagues. Students will use the biographical posts to serve as a reference point to communicate during the course.

Positive Affirmation of Student Work

Instructors can promote greater online participation by affirming their students' abilities and knowledge. The teacher can make positive comments about an individuals' expertise in a public forum such as a newsgroup and through private email messages. The key is to be sincere and share positive comments with every student in the class. Adult learners appreciate being recognized for their accomplishments and online classes offer numerous opportunities for instructors to affirm quality work.

Integrate Stories into the Class Discussions

Online students want classes that stress the human side of learning. The online environment can be lonely at times and students want to get to know their teachers and classmates. The author has found that students really enjoy stories from the teacher's life because it makes the class more personal and assists them with their academic work. In a doctoral research class, it would be a good opportunity for the instructor to share stories that provides insights on how he or she arrived at their dissertation topic. The wise instructor will use short stories to generate lively discussion within the class on a variety of social issues.

Provide Student's with Flexibility

> *Instructors must be careful not to provide excessive structure to their classes that eliminates the potential for students making critical decisions about their assignments. The term flexibility refers to making the learning more relevant to the student's needs or circumstances. The instructional emphasis is to make the learning experiences more individualized. Collis (1998) relates, "these relate to time flexibility, content flexibility, entry and completion flexibility, instructional-approach flexibility, learning-resource flexibility, technology-use flexibility, interactivity and communication flexibility, course-logistics flexibility, as well as location flexibility (p. 376)."*

Further Research Needed

Current interactivity research studies in online classes recognize that communication in cyberspace is a complex entity. Distance educators have tried to create educational models to accurately describe online interaction but they appear to be inadequate because the communication and learning patterns are far more dynamic and transcend neat categories (Solomon, 2000). Those who advocate constructivist theory and principles must admit that much more research needs to done to affirm the validity of these theories in an actual class. Farahani's (2003) study highlights some of the apparent flaws in constructivist theory in regards to student learning when applied to today's distance education settings. "…instructors' comments dismissed the notion in constructivist theory that all learners would benefit from interaction for more in-depth learning and consequently higher-order critical thinking (p. 119)."

Interactivity has been a major focus for researchers but much more needs to be done. A vital research area that requires greater attention involves studying online learning communities (i.e. development, collaboration and interaction). The issue of learner support is connected to related topics such as student attrition. For instance, what are the most effective types of learner support? What kinds of successful strategies used with traditional learners can be applied to online students? Questions remain about the types of interaction that provide the best educational experiences for students. What are the most effective ways to facilitate student collaboration? What teacher practices encourage positive communication within the class? Meyer (2002)

wonders whether there is optimal amount of interaction within online classes and asks "is the effect of interaction idiosyncratic to the person, or is there some type of interaction that engenders more learning from a student?" (p. 35).

A review of the literature identifies a major oversight in the educational studies. There is a strong focus on the individual learner differences but researchers have neglected to study individual differences in teachers' facilitator skills that can influence the quality of interactivity. The transition from being a traditional teacher to an online facilitator is challenging one because instructors often need professional staff development to properly prepare them. Educators can create research projects that investigate what are the appropriate and most effective pedagogical and technological skills to enhance interaction and promote academic achievement. Additionally, there is a need to study online interaction from a communication theory perspective by investigating a diversity of variables such as length and number of messages, type of information shared and the amount of time between responses. The studies would provide deeper descriptions and insights into the nature of interactivity.

Garrison and Anderson (2003) have developed a promising new distance education model known as the community of inquiry which involves three main three elements: social presence, cognitive presence and teacher presence. The model reflects a greater emphasis on social factors and less attention to psychological which has characterized the current generation of research studies. Future researchers should seriously consider the need to focus greater attention to studying learning teams and the learning organization which have been neglected. Gibson (2003) observes "we have the tools and we have the demand. What we don't have is research to inform our practice" (p. 157).

Conclusion

Today's professional development programs for online teachers would benefit from interactivity research studies and tailor their curriculum to better prepare their instructors. Teachers need the expertise to develop a class structure that stimulates social interaction and affirms rigorous academic standards while fostering independent learning skills.

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Editor's Note: Part of academic discipline is to document observations and conduct research so others can benefit. Bhupinder Virk is a student who noted variations in student learning from discussion boards. She performed a study of the mechanisms involved and, based on her findings, suggests how online facilitators can increase student comfort level, participation, and learning.

A Balancing Act: Improving Student Online Discussion Participation

Bhupinder Virk

Introduction

Increase in student participation in an online course results in increased learning (Roblyer & Ekhaml, 2000). Many online instructors, in the hope of improving student participation, include discussion forums in their online courses. However, inclusion of discussion boards does not automatically ensure increased learning and student satisfaction. Understanding how students participate in an online course is the first step to determine how to best engage students.

This article looks at student participation in an online course and observes the following aspects of student involvement:

Frequency

What percentages of posts are read?

What percentages of posts are read but not responded to?

Comfort Level

How has the comfort level of posting to a discussion board changed as the student has progressed through the masters program?

Examination of these questions gave insight to help students become successful online participants.

Method

The graduate online course, History and Culture of Online Learning Communities, was offered in fall 2004 at California State University, Hayward. Collaboration and discussion was an integral part of the course. Blackboard was the course management software. A questionnaire was distributed to students with 11 questions related to frequency of posts and students' comfort level with participating in a discussion forum. Fourteen of twenty students answered the questionnaire. Students were given the option to remain anonymous.

Results and Interpretations

Reading and Responding to Posts

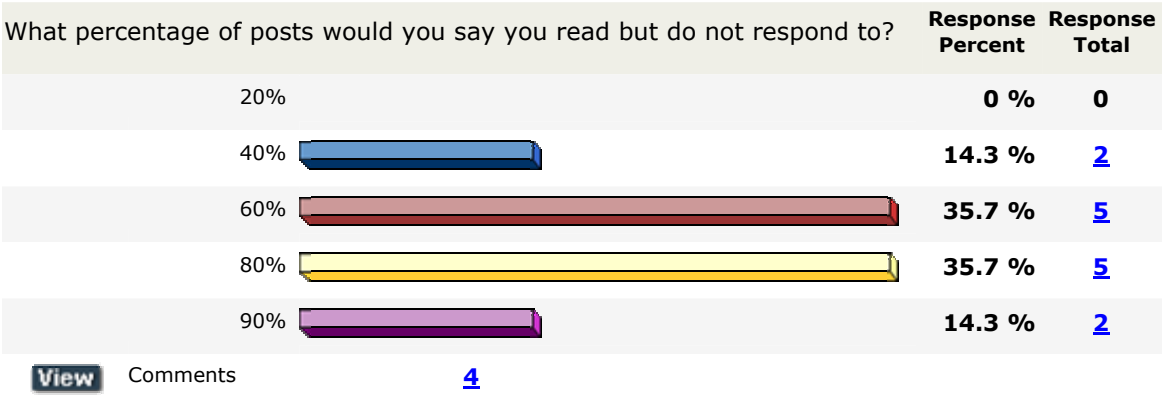

Figure 1 Percentage of posts read but not responded to (KeySurvey, 2004)

Majority of the students read somewhere between 70 to 80 percent of the posts. The range of posts that were read but not responded to (Figure 1) was wider, 40 to 90 percent. One of the reasons stated for not responding to the posts was not having time to respond. The primary reasons for not responding were students feeling they have nothing to offer and needing time to think about the post.

Students were asked if the frequency of their posts was influenced by the instructor's presence in the discussion forum. The instructor's presence didn't appear to have a significant impact on the students' posting habits. 6 students said the presence of the student mattered. While 2 students said it depended on the particular topic and the rest indicated the presence of the instructor was not a large influence on their posting frequency. Students in this online course have had previous online discussion experience. Perhaps, the instructor's presence would make a bigger difference in a beginning online course(s).

The number of responses to the question "does the subject line influence your decision to read the post" was equally spread out. 38.5 % of the students answered "yes", 30.8 % answered "sometimes", and 30.8 % answered "no". The students who stated the subject line influenced their decision to read the post also indicated lack of time was one of the reasons they read the posts but did not respond to them.

Discussion Comfort Level

Students were asked to rate their discussion input and comfort level as they progressed through the masters program (Figure 3).

Rate your discussion input and comfort level

View	Uncomfortable 1.	2.	3.	4.	5.	6.	Very Comfortable 7.	Response Total
First course	14.3 % (2)	14.3 % (2)	7.1 % (1)	14.3 % (2)	21.4 % (3)	21.4 % (3)	7.1 % (1)	14
A few courses later	0 % (0)	7.1 % (1)	0 % (0)	28.6 % (4)	28.6 % (4)	7.1 % (1)	28.6 % (4)	14
Now (if you are a class or two away from completing the program)	0 % (0)	0 % (0)	7.7 % (1)	0 % (0)	23.1 % (3)	23.1 % (3)	46.2 % (6)	13
Total # of respondents **14**. Statistics based on **14** respondents **0** filtered; **0** skipped								

Figure 3 Discussion Comfort Level (KeySurvey, 2004)

One of the students summed up well the major reasons students felt more comfortable participating in a discussion forum, "Generally getting used to something new, Encouragement from instructor and understanding how important discussions were for learning" (Lorraine, 2004).

How often students hesitated to post when they had questions or opposing opinions and reasons for their hesitation was also examined. Most students hesitated 20 to 30% of the times. Lack of time, other students already responded and not overburdening other students with extra reading were some of the causes for hesitation. It is important to note even though there may not have been a written response, reflection about what was read is evident. For example, one of the questionnaire's respondents writes "I also don't see a need to respond to everything- I may respond mentally, but don't need to post" (Deano, 2004).

Conclusion

Using time efficiently to read and respond to post appears to play a major role in the level and quality of student participation. Many students do not want to be overloaded with information. However, they still want the opportunity to discuss in depth their selected topic. The right amount of discussion participation appears to be at best a balancing act (Figure 4).

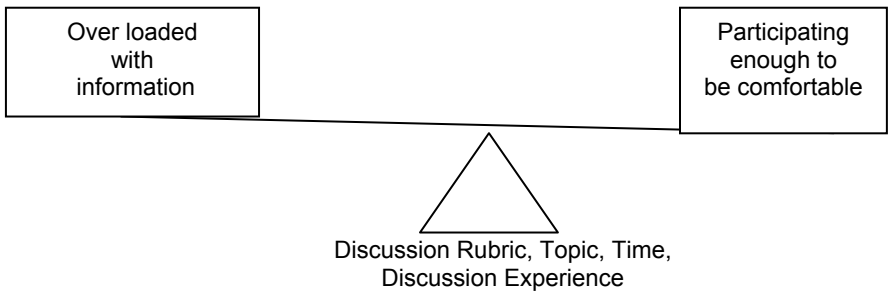

Figure 4 Balancing Act

Organization and length of threads can also affect where students' time can be best spent. Several students indicated they scanned the subject line before reading the posts. Other students also mentioned they avoided lengthy discussion threads. Instructors can encourage students to categorize and give specific titles to discussion threads. Course management discussion software could be improved for easier readability and organization.

Students improved comfort level with online discussion is influenced by several factors. These factors include participants personalities, instructor's encouragement, group activities, participant's responses and the one most cited- **opportunity to practice discussion**. Therefore, the opportunity to practice different levels of discussion, especially in the beginning courses, could have a major influence on how soon students will feel comfortable and successful in an online course.

Application of Findings

What can online instructors do to improve student involvement in their courses? Specifically, what can be done to help students become more comfortable and at the same time not become overwhelmed with the discussion process?

Specific Suggestions for Online Facilitators

Helping to Make the Discussion Boards Easier to Navigate

1. Use specific title in the subject line.
2. Include a line or two of the post you are responding to.
3. Write easy to read posts by applying text formatting and avoiding lengthy blocks of text.
4. Categorize or start new threads when the discussion threads become too long.
5. Give enough time to students to read and respond to discussion topics.
6. Do not overload student with information at one time.

Helping Students Become More Comfortable Participating Online

1. Provide students MANY opportunities to practice discussion.

   -feedback to peers

   -sharing experiences

   -group work

   -sharing resources

   -leading a discussion topic (student facilitators)

   -analyzing and commenting on research

2. Provide a safe and encouraging environment.
3. Explain the value of discussion and its connection to learning.
4. Provide a discussion rubric which includes good student participation examples.

Summary

This article looked at how students participate in an online course. Students' frequency and comfort level with online participation was stated to be influenced by time, organization of threads and opportunity to practice different levels of discussion. Frequency and comfort level are just a few aspects of student participation. There is still much more to learn about students' online discussion practices. Studies similar to this one will be beneficial to facilitators who are looking to improve student engagement in their online courses.

References

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About the Author

Bhupinder Virk is in her last course in the Online Teaching and Learning Masters Program through California State University, Hayward. Her comfort level with participating in discussion forums has changed considerably since the beginning of the program. She personally experienced the positive impact online participation has in learning. She can be contacted at bhusafdar@yahoo.com.