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Editorial

Exceeds Expectations

Donald G. Perrin

Levels of quality vary between courses, instructors, and institutions. In days gone by, we compared our educational institutions with local schools and universities and we set up and adhered to state and national standards. As the world became smaller, new nations joined the global economy and both jobs and employees became more mobile. As a result, regional standards were replaced by global standards. Competition raised the benchmarks even higher. Today, job applicants face competition from around the world. How do we prepare learners for a competition where they face the best-of-the-best?

It has been said that students are rarely better than their teachers. This does not allow for entrepreneurs and geniuses. Under the old paradigm, the teacher exercised so much control that they inadvertently constrained the more able learners. This is where the new paradigm is different. Instruction materials replace teachers, are the primary delivery system. The teacher can diagnose and prescribe, counsel, guide, tutor, coach, or consult as a resource person. The student is in control and responsible for his or her own learning.

Materials can team produced and improved based on feedback. They can be used to motivate, pre-organize, and lead students step-by-step. They can be used with groups of any size or with individuals. They can be interactive and responsive to individual needs. They are transportable by electronic communications to be used at any time in any place. Potential number of users is very high, while replication and distribution cost is very low.

Television and the Internet share the best teachers and learning materials. Teaching is no longer a folk art that mimics the way we were taught. It is a science based on motivation and learning theory and successful “best practices.” It requires relevant goals and up-to-date subject matter supported by rigorous assessment, design, implementation and evaluation. Instructional design is more than design of instruction. It has its own architecture based on performance objectives, taxonomies, presentation methods, and evaluation. Add a learning management system and you have liberated both teacher and student to do what they do best.

The other major paradigm shift is mastery learning. A rubric tells you when the criterion is achieved. This replaces letter grades because everyone is supported to reach the standard or benchmark (time is a variable, learning is a constant). If you need a higher grade to distinguish top performers, consider adding “exceeds expectations” wherever it applies in the student’s portfolio.

Editor's Note: Teaching/Learning experiences may sometimes extrapolate well from a face-to-face live classroom to the distance learning experience. The bibliography for this paper is of special interest – widely varied and creatively demonstrated?

A Case Study on Effectiveness of Debriefing as an Instructional Strategy in Web-Based Instruction

Cheng-Chang Pan, Michael Sullivan
USA

Abstract

This investigation is concentrated on the use of debriefing in a graduate distance education course within three semesters from a southern state university in the United States. Using content analysis, six themes are identified: learned decisions, reinforcement, reciprocity, anticipation, perception change, and positive attitude. Results suggest that debriefing be considered instrumental in sustaining students' endeavors and allowing for group synergy.

Keywords: Debriefing, instructional strategy, online course, elearning, distance education, distributed learning, Web-based instruction, synchronous communications.

Introduction

The present study is intended to explore the potential use of “debriefing” as an instructional strategy in an online graduate practicum course within a state university in southern Texas, USA. The problem that we encounter as cyber instructors is the lack of efficacy for learner reflection, which is considered a personal process and may or may not involve a dialogue with an enabler or a peer.

The goals of this investigation are twofold: first, we want to examine how “debriefing” is used in other disciplines, e.g., military and corporate; second, we wish to examine how debriefing strategies can be used in an online course in order to ascertain what potential benefits, if any, can be gleaned for students, instructors and the instructional package itself. Cyber instructors and course developers/instructional designers are expected to benefit from this study/presentation.

Literature Review

Let us begin by asking ourselves, “What is debriefing?”

We can begin by defining debriefing by a quick look at its origins as a means for gathering and sharing information in an interactive fashion, in a variety of situations. Debriefing originated with the United States Air Force during World War II, and is still a commonly used means by which pilots are interviewed after returning from an assigned mission and an account of their operation is then elicited (Colby, 1980). In the medical field, debriefing is adopted as a widely accepted intervention for traumatized victims (Deahl, 2000; Smith & Roberts, 2003). Additionally, health professionals regard debriefing as common practice in a focus group dealing with using adolescents as standardized patients (Blake, Gusella, Greaven, & Wakefield, 2006).

Debriefing is also seen in the corporate world, particularly in the training area (Chernick, 1992; Geber, 1994). Chernick (1992) states that upon completion of a telecommunication training course, a debriefing session is usually held. The debriefing session tends to include a group of participants who respond to a pre-defined list of unstructured questions altogether. Such activity can be followed by a clarification session if needed. Two frequently asked questions during the debriefing are, “What worked well?” and “What would you change to make it [the course] better

(Chernick, 1992, p. 72)?” Further specifics of an algorithmic approach were prescribed by Thiagarajan (as cited in Gebber, 1994) in which he proposes five stages of debriefing (p. 11):

Stage One: **How do you feel?**

Stage Two: **What happened?**

Stage Three: **Do you agree?**

Stage Four: **Has this ever happened to you in the workplace?**

Stage Five: **What if?...**

Advocates of debriefing seem to go beyond personal reflection practice and emphasize a purposive conversation (as opposed to a casual conversation or an intrapersonal dialogue) within a group setting.

An important distinction is made by Andrusyszyn and Yankou (2004) who go to great length to distinguish debriefing from reflection. The two Canadian researchers state that reflection is an intrapersonal activity which is generally used to enable an individual learner to review his/her courses of conduct and to clarify his/her own experience of interacting with the external world. Debriefing is a different activity and for different purposes than the reflective gaze in the mirror of one’s psyche. Debriefing, for them, is a specific form of reflection for a particular purpose that may involve a group. It also serves as a strategy to foster reflection. Drawn from the experiential learning theory, Menaker, Coleman, Collins, and Murawski (2006) acknowledge the significance of revisiting personal experience and its influence on both the individual and group levels. They further assert that such practice can allow learners to strengthen their knowledge, skills, and attitude and to promote deep learning.

Russell (as cited in Collis, De Boer, and Slotman, 2001) separates debriefing from feedback. According to Russell, feedback is a process of measuring learner performance on standards. This process is a type of comparison that occurs in a learning context where a pre-determined set of correct or incorrect answers exists. Conversely, debriefing does not deal with “a guaranteed outcome and the purpose of debriefing is to explore options” (p. 307). These options suggest a new understanding of the learning experience.

Apparently, literature appears to suggest that debriefing can be an effective method for learning transfer--the optimal objective of most course (activity) designs.

Method

This inquiry is a qualitative study in nature. Three classes of graduate students (with a total of 38 students) enrolled in the practicum class between Fall 2006 and Summer 2007 within an online graduate program participated in the study. The practicum course is only offered to those who are finishing the last six hours in the 36-hour Educational Technology program within a state university in southern Texas. The course is delivered via Blackboard course management system (CMS) through a state telecourse department that coordinates with other campuses with the same state university system and makes this joint offering of a completely online MEd a reality. The state university confers the degree of Master’s of Education in Educational Technology.

Data were collected from students’ biweekly reflective writing assignments. Only those reflection papers submitted right before and immediately after the scheduled midterm debriefing are selected for further analysis. A total of 17 papers are selected because midterm debriefing was mentioned in the writing. Two of them were submitted before the midterm debriefing. Data were analyzed using content analysis. The content analysis procedure consisted of taking all written reflections and “color coding” key words, phrases, examples of self dialogue (or self

questioning), questions to the instructor (classified as wanting further clarification, advice on possible changes in strategies and directions of individual projects), etc. The results of the content analysis revealed six major themes which will be briefly discussed at the conclusion of this paper. A description of the course content and course activities follows.

Course Description and Design

Below is the course description adapted from the course in Spring 2007:

This is your “capstone” course for the Educational Technology program. In this course you will synthesize your skills and conceptual background you have gained (or refined) as you have progressed through the program. You will produce both a product and demonstrate a process. The product will be a topic of your choosing. In the event you cannot select a topic, or would prefer not to select a topic for your project, the instructor will do so for you. Please refer to the “Projects” link for further information about what is expected for your project. The process upon which this course will focus is self-reflection. This course will ask you to answer the question, “How will you continue your education after you have completed your formal coursework and have your Master’s degree?” By systematically reflecting upon how you identify problems and develop strategies, how you gather and relegate resources, and how you monitor your progress as you grapple with a solution to an instructional problem, you will be able to identify your areas of strength, and those areas you may want to further develop after you have obtained your degree. Please see calendar and refer to the “Reflections” link for further information on this part of the course.

As far course design goes, the practicum class entails two required meetings: midterm debriefing and final oral presentation in Horizon Wimba Live Classroom, a conference management system.

Voluntary meetings are also scheduled, and they are orientation (at the beginning of the semester) and Design Document meeting (scheduled in between midterm debriefing and final oral presentation). Unscheduled meetings are available in response to emerging needs of class participants. For instance, two of the three classes had an unscheduled meeting on conducting instructional (task) analysis and diagramming selected tasks.

Regarding the coursework, the course consists of one capstone project and six reflection papers, plus the two mandated meetings. The capstone project is divided into three parts:

Part 1: Proposal

Part 1 Project is a proposal where students identify a performance problem with an instructional solution to it. A template is furnished (see Appendix A). Students will present their proposal to the instructor for approval in the first two weeks.

Part 2: Instructional materials (i.e., deliverables) and design document

The next 12 weeks are used to develop Part 2 project, which is the bulk of the capstone project. Using the Dick and Carey model (Dick, Carey, & Carey, 2006) as a guide, students will proceed with the proposal accordingly. A grading system is provided for students in advance.

Part 3: Lessons learned

Part 3 Project is concerned with the lessons learned. An 800-word formal writing is assigned, which is a synopsis of the practicum project and summative reflective writings. No colloquialism, slang, or idioms are allowed. A grading system is also provided for students to prepare this document.

The two mandatory meetings, midterm debriefing and final oral presentation were facilitated using Horizon Wimba Live Classroom, embedded in this Blackboard practicum course. Using VoIP technology, the conference management system enables the class to speak, present their PowerPoint slides, and share the desktop of their computers with other class members. Typically class members would convene for approximately 90 minute to 150 minute sessions. In “round robin” style, class members would present their project and answer a set of questions, designed as a format to debrief presenters. Debriefing exercises were not “tied” to the preset question bank, and the debriefing was purposely designed to be open-ended if the exercise moved away from the prepared question set. The questions prompting the midterm debriefing follow.

Midterm debriefing

One week prior to the scheduled meeting, students received the following lead questions from the instructor:

1. What is the terminal or ultimate goal of the project (within the timeframe of this course)? Tell us again what you plan to accomplish by April 11, 2007.
2. What does the deliverable look like now? Is it taking shape? What does your end-product look like at this point?
3. How is the culminating project going? If you recall, you are also putting together a website that demonstrates all the reflections and projects. The website serves as a portal, where viewers can click and read your work. How is this part going?
4. What lessons have you learned?
5. What is the chance of finishing the project in about a month?
6. Is there any other concern or issue that may interest the class as a whole?

These questions are intended to assist the students in preparing for the midterm debriefing.

Final oral presentation

1. Below are questions sent by the instructor to the students one week before the scheduled meeting:
2. What is the terminal or ultimate goal of the project (within the timeframe of this course)? Tell us again what you planned to accomplish.
3. What have you accomplished in your Part II project? Describe it.
4. How does the end product differ from your initial plan?
5. Tell us about your rationale for the instructional design by using one of your lessons/modules as an example.
6. What lesson(s) have you learned from this capstone project?

Likely, these questions are intended to lead the students at the final presentation.

It is worth noting that, although the class orientation is involuntary, students are greatly encouraged to take part in the event on the first day of the class or manage to listen to the archived session. Due to the nature of this cyber class, reminders are provided at the event:

1. Stick to the goal.
2. Keep up with the timeline.
3. Inventory available resources and assets.

4. Use a previously learned repertoire of skill sets.
5. Anticipate multi-tasking.
6. Prepare for the unexpected.
7. Seek support from others.
8. Stay focused.
9. Remain calm under all circumstances.
10. Allow time for self-reflection.

Results and Interpretation

With the help of the midterm debriefing, students acquired a new understanding of the purpose of the practicum course. Their overall perception of this type of instructional strategy was positive. Our preliminary analysis suggests that six themes have emerged.

Learned Decisions

The midterm event allowed for learned decisions. For instance, Student A made the following remarks in the reflection assignment:

“After feedback from my last reflection paper and comments made during the midterm debriefing I realized that I need to elaborate further on the development of this project...”

At the debriefing, not just the feedback from the instructor and the peers but also questions they asked made the student realized that something needed to be changed or fine-tuned. This realization may have happened as a result of self reflection or metacognition because of the debriefing. This is a case where the student was a presenter.

From a participant’s (listener’s) perspective, another female student (Student B) reported the following in the assignment:

“I have also learned a lot from the previous mid-term meeting. While listening to others speak about their project, I was able to picture how other projects were being created and managed. I originally was creating everything on PowerPoint, but quickly realized that most of my classmates were creating their projects on the internet. I decided to also add some interaction to the project and can only hope for a thriving project for this course.”

Apparently, she participated in the debriefing and listened carefully to how her peers developed and managed the capstone project. She then decided to change her courses of action by switching to PowerPoint and adding more interaction design features to her work. All of this change was in a hope for a successful experience.

Reinforcement

This individual learner (Student C) viewed the debriefing as an opportunity to determine his progress in relation to others’ and he was assured that compared to others, he had made substantial progress. This reinforcement not only strengthened his self confidence for the completion of the project but also empowered him intellectually to try out new ideas on the project. The debriefing event seemed to reinforce his cognition and affection associated with this capstone project (see below).

“The midterm debriefing was a good check point to see where I stood and to have a sense of what other people were doing and how they felt about the project. I feel like I’m doing

pretty well on my project. I have a lot of the work done but there is a lot more to be done.”

Another male student (Student D) made a similar comment:

“...The ability to see other formulations and foundations has sparked other ideas that I plan to implement on my project, too. This is true, I was able to benefit from the mid-term debriefing and reflect upon my ideas. This process has directed me in a path that will continue to add on to my final vision.”

Reciprocity

Benefit from the debriefing should not be exclusively for the presenter or the participant (audience). As a matter of fact, the midterm debriefing appeared to benefit both sides. Student E made the following comment in his reflection paper:

“It was good to see the other projects at the mid-term debriefing. I will be able to use their work to guide me as I create my own project and hopefully mine will provide some assistance for them.”

Anticipation

Students’ anticipation for the midterm debriefing had a symbolic meaning. Their expectation suggested an intrinsic value of the instructional event. It is worth noting that these students were not instructed to discuss specifically the midterm debriefing in the biweekly assignment. Yet, they talked about it, which suggests they be interested in the debriefing and looking forward to it. Below are quotes from two students’ reflection papers prior to the scheduled event:

“As the mid-term debriefing draws near, I am interested to see the class projects that will be introduced on Wednesday of this week. This process will guide me in the proper direction and will help me complete my vision.” (Student E)

“My short-term objectives for this next two weeks are first to start working on the performance objectives and then prepare for the mid-term [debriefing] presentation. I think it will be interesting to see where the other students in class are within their projects.” (Student F)

They were interested in the event partially because they were able to take advantage of the event and to check or confirm where they were standing in the project. These students used this event as a feedback to (re)adjust and (re)affirm their work experience.

Perception Change

Students’ perception may have changed due to the debriefing. Student G mentioned in her reflection paper that the class unanimously recognized the gravity of this practicum project. Because there were a great number of little pieces of work involved in this project, students initially encountered difficulty in keeping track of the pieces. The midterm debriefing helped these students re-examine the basics of the project and stick to the approved proposal (blueprint). It could be this collective understanding of the nature of the project that changed these students’ perception that this humongous task is achievable. Here is what Student G said,

“The best thing I’ve learned since the last reflection is that I’m not alone. There seemed to be an echo in the room when we were doing our Midterm Debriefing.... The more I do, the more it seems I need to do... I stated in my first reflection that I thought I had possibly bitten off more than I could chew, but it is becoming more achievable as I continue to work on it. Like XXX [Another classmate] said, ‘The pieces are coming together.’”

Furthermore, this change of perception may, in turn, have increased the students' confidence level. Below is how Student H described his thoughts in this regard:

"What did I learn this past two weeks? The first thing I learned is that it is possible to complete this project. Even though I said it with confidence in the mid-term debriefing, I was not confident that I would finish. Now I believe that I can see the light at the end of the tunnel."

Positive attitude

Debriefing appeared to promote a positive attitude of students toward the capstone project. The midterm activity did convey a message to the class: "Indeed, it is a lot of work, and you are not alone" (see Student G's comment previously mentioned). Although overwhelmed, students encouraged one another to accept the emotional setback, turn it around, and make a positive breakthrough. Student I presented her comment on this:

"I was unable to participate in the midterm debriefing with the class live but I did listen to the archived session the next evening. I actually felt better about my progress as I feel that we all are feeling that we are in the same boat."

Student J's reflection below also supports our interpretation here. She even patted herself and her classmates on their backs by acknowledging the hard work they had accomplished thus far.

"I have learned after Monday's debriefing that I am not alone in this endeavor and that all of us are working diligently and laboriously. I will continue to work on the rest of the project with intentions to finish it by this weekend."

Summary and Conclusions

This qualitative study has two major purposes. First, we intend to explore how psychological debriefing is used in the other disciplines. Second, we are interested in investigating to what extent a debriefing strategy can be incorporated in an online practicum course as an instructional activity in light of benefit for our students. Three graduate classes during Fall 2006 and Summer 2007 participated in the research with a total of 38 students. The students' biweekly reflection papers were reviewed. Seventeen of the papers were selected for further content analysis.

Six major themes emerged: Learned decisions, reinforcement, reciprocity, anticipation, perception change, and positive attitude.

- Students reported that the midterm debriefing activity enabled them to make learned decisions thanks to all the information being presented during the session by the class and the instructor.
- Students' thoughts of the project design were reinforced by listening and picturing what their peers did to their own work. For some, debriefing was associated with a mutual benefit for the development of the capstone project. Both participants and presenters benefited from this reciprocal activity.
- Results also indicate that students considered the debriefing activity potentially instrumental, so they had a keen expectation for this event to assist them in guiding them and completing the project.
- Students' perception may have changed due to the class event. The class gathered for the debriefing close to the midterm of the semester during which each student was informing and being informed of the fundamental issues related to the capstone project. In the process, a collective perception of the achievement of this project is (re)affirmed.

- Lastly, the debriefing was able to promote a positive attitude change. This practicum project was intended to allow students to demonstrate all the competences they have acquired throughout the Educational Technology program. The capstone project was expected to be more extensive than any other previous project in terms of its scope and size. All this suggests that the practicum can be overwhelming for some. Regardless, the midterm activity seemed to exert a positive influence on students in regard to their attitudes toward the capstone project itself. Instead of taking an emotional “hit” by the workload of the project, students turned the hit around and made the best out of it.

We learned that students generally favored psychological debriefings as an instructional strategy. They came to the debriefing session with an eager expectation to learn from the group and to explore new options to cope with problems to come. While they were presenting their unfinished projects, they were holding back one step and looking at what they did. This is a matter of reflection. While they were listening to others’ presentations, they were comparing and contrasting their works with one another. The comment students provided for one another not only guided their projects but also helped them explore new methods to deal with content-specific issues. And that is what debriefing can offer.

References

- Andrusyszyn, M., & Yankou, D. (2004). Attention fatigue and the effect of debriefing in a Webenhanced graduate nursing course. *International Journal of Instructional Technology and Distance Learning*, 1(4), 61-66.
- Blake, K. D., Gusella, J., Greaven, S., & Wakefield, S. (2005). The risks and benefits of being a young female adolescent standardised patient. *Medical Education*, 40, 26-35.
- Chernick, J. (1992, April). Keeping your pilots on course. *Training and Development*, 46(4), 69-73.
- Colby, E. (1980). New army talk. *American Speech*, 55(4), 307-308.
- Collis, B., De Boer, W., & Slotman, K. (2001). Feedback for web-based assignments. *Journal of Computer Assisted Learning*, 17, 306-313.
- Deahl, M. (2000). Psychological debriefing: Controversy and challenge. *Australian and New Zealand Journal of Psychiatry*, 34, 929-939.
- Geber, B. (1994, April). Let the games begin. *Training*, 10-15.
- Menaker, E., Coleman, S., Collins, J., Murawski, M. (2006, December). *Harnessing experiential learning theory to achieve warfighting excellence*. Paper presented at the Interservice/Industry Training, Simulation, and Education Conference (IITSEC, 2006), Orlando, FL. Retrieved February 27, 2007 from http://www.iitsec.org/documents/Ed_2974.pdf
- Smith, A., & Roberts, K. (2003). Interventions for post-traumatic stress disorder and psychological distress in emergency ambulance personnel: A review of the literature. *Emergency Medicine Journal*, 20, 75-78.

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Appendix

Capstone Project: Part I Proposal Template

EDTC 6332 Practicum

Performance problem

Identify a real life performance situation. Determine a performance gap that has a potential instructional solution in nature. State the problem in detail and describe the context.

Viable solution

State two of the most viable solutions that are instructional in nature. Fully describe the two solutions.

Compare and contrast the two and choose one that is more promising than the other. Use SWOT analysis to fill out the following table.

	Solution 1	Solution 2
Description of the solution		
Internal (personal) strengths in relation to the solution		
Internal (personal) weaknesses in relation to the solution		
External (environmental) opportunities in relation to the solution		
External (environmental) threats in relation to the solution		
Your chosen solution		
Reasons		

Deliverables

Please describe your deliverables. What does the final project look like? What is the final project made up of?

Instructional Goals and Objectives

Using Bloom’s taxonomies, state the instructional goal. Translate the goal into at least three terminal objectives. (Please note that this practicum project is more extensive than any other course project you did before in its size, scope, and depth.) Each terminal objective should include at least three enabling objectives. Use the following table to organize the objectives.

Goal	Terminal Objective	Enabling Objective
Goal Statement	Terminal Objective 1	Enabling Objective 1.1
		Enabling Objective 1.2
		Enabling Objective 1.3
	Terminal Objective 2	Enabling Objective 2.1
		Enabling Objective 2.2
		Enabling Objective 2.3
	Terminal Objective 3	Enabling Objective 3.1
		Enabling Objective 3.2
		Enabling Objective 3.3

This information may be subject to the output/results of your instructional/task analysis.

Action plan

Use the following table to design the instruction.

Objective	Activity	Technology	Assessment
<i>Terminal Objective 1</i>	State student's activities and the instructor's activities side by side.	Select appropriate media/technology.	
Enabling Objective 1.1			
Enabling Objective 1.2			
Enabling Objective 1.3			
<i>Terminal Objective 2</i>			
Enabling Objective 2.1			
Enabling Objective 2.2			
Enabling Objective 2.3			
<i>Terminal Objective 3</i>			
Enabling Objective 3.1			
Enabling Objective 3.2			
Enabling Objective 3.3			

Timeline

After reviewing your objectives and our course calendar, create a timeline for all the milestones of this capstone project. Please note that an effective timeline should reflect your personal work scheduled during the timeframe of this course and it should allow for the unexpected.

Editor's Note: Because we are a society of consumers to be satisfied and rewarded, marketing has become as significant in "selling" education as in selling any other commodity.

Effective Tools for Marketing Education Based on Adopted Customer Service Models

Helen Madden-Hallett, Henry Wai Leong Ho
Australia

Abstract

The purpose of the paper is to confirm the existence of a customer service model within the provision of on-line marketing of education. Previous studies relating to customer service models were adapted to determine the efficacy of the constructs in the education context. The data set comprised 328 responses from a questionnaire survey of undergraduate students enrolled in marketing subjects. The major finding is that five factors were found relating to the use of WebCT as an on-line education tool. These factors in order of weightings are ease of use, level of enjoyment and positive self-image, time saving elements, usefulness and its helpfulness as an administration tool. The study clearly signposts areas of development of WebCT as a learning tool for future use in marketing education.

Keywords: WebCT, marketing education, education as a service

Introduction

This paper looks at the roll out of WebCT as a dissemination and communication tool in an undergraduate business degree in the Western region of Melbourne, Australia and is relevant for other tertiary education providers using electronic teaching tools.

The last decade saw the inception and growth of web-based learning (Aggarwal, 2000). Most web-based learning environments use some individual face to face teaching as a featured aspect of the program and contain both static and interactive materials. Some advantages of web-based learning include universal accessibility, ease in updating content, and hyperlink functions that permit cross-referencing to other resources (Aggarwal, 2000; McKimm, Jollie, & Cantillon, 2003).

In Australia, most tertiary institutions use web-based learning to facilitate teaching and learning for most on-campus degrees. This use of technology supports students becoming lifelong learners by enabling them to be pro-active in their learning by independently utilizing materials available on-line (Clarke & Hermens, 2001). Specifically, WebCT has become a popular tool for web-based teaching and learning across institutions.

Literature Review

WebCT

WebCT is an online management teaching tool that works within an Internet browser. Its many capabilities include housing documents, asynchronous communication between teacher and student, a grade tracking module, and a calendar (Merron, 1999). Students are able to conveniently download materials and access bulletin boards and other materials posted by the teacher.

Criticism has been levelled at WebCT because materials *are* so easily retrieved electronically and easy access it is argued results in poor attendance, because students believe access to materials is all that is required to complete subjects successfully. This is supported by Edwards and Usher

(2001) who suggest that the Internet and other forms of electronic interface provide students with learning flexibility and a lessening of the need to attend formal learning centres. The assumption in this paper is that attendance has an important bearing on a student's academic performance and this view is supported by Woodfield et al. (2006) who state that attendance is 'the strongest predictor' of students' academic success when measured with several other variables. This is confirmed by Gump (2005) who indicates that attendance is one of many variables affecting student learning and this view is further developed by Jacobson (2005) who suggests that attendance may have a causal relationship with learning.

Education as a Service

Student communities expect materials to be provided on-line and information technology is a strong teacher to student interface to facilitate learning (Barraket, Payne, Scott, & Cameron, 2000). Students undertake paid employment whilst studying (Watts & Pickering, 2000). The use of information technology to assist students in accessing information relating to their subject reduces the time taken to do so. In this way, the secondary effects of paid employment, such as fatigue and having chronic time shortage for study could be managed more effectively with remote downloading (from home or work), 24 hour access to the materials and fast download times.

The on-line aspects of educational support mimic some aspects of on-line customer service. Although a traditional university education is dissimilar from pure business operations, the philosophies of new age universities are however more aligned to the business perspective of viewing students as customers to be managed using customer service principles. These principles include such aspects as customer expectation and management's perspective of customer expectation (Cox & Dale, 2001). Whilst the purpose of the 'traditional' universities such as the creation and examination of new ideas (King, 1995), and social, personal and economic growth (King, 1995; McKenna, 2001; Phenix, 1965) and a civilizing effect on society (McKenna, 2001) have not necessarily been ousted, this paper examines various constructs relating to students as customers with certain learning expectations more likely aligned to the use of knowledge to generate wealth after graduation (Prince & Stewart, 2002).

The questionnaire was developed on the basis of previous studies looking at customer internet service. The constructs of "most relevance" were examined and those which related specifically to the financial markets were omitted. Maenpaa (2006) and Jun and Cai (2001) consider ease of use particularly relevant when using information technology as a service media, followed by the enjoyment aspect (Maenpaa, 2006; Waite & Harrison, 2004). The time saving construct is also noted as important and Maenpaa (2006) suggests that this allows customers in the banking industry to spend more time with family and friends. Considering the "time poor" nature of students who are working and studying, it was thought to be an important consideration and worth including in this study. Additionally, Alfansi and Sargent (2000) suggest that relationships are important in terms of customer support and security from the provider. They go further and suggest that interpersonal off-line relationships significantly affected customers. In the context of students using WebCT some aspects are relevant such as the importance of building on-line relationships to achieve mutually beneficial goals.

Web-based learning in an institution is often integrated with conventional, face to face teaching. This is normally done via an intranet, which is usually "password protected" and accessible only to registered users. Thus it is possible to protect the intellectual property of online material and to support confidential exchange of communication between students (McKimm, Jollie, & Cantillon, 2003). Alfansi and Sargent (2000) identified 'security of their banking relationship' as important. However, in the context of this study, an acceptable minimum level of security is provided in the operation of universities in Australia, as Federal Government institutions. This area, though an important consideration, was not investigated in this study.

Customer service was also considered an important construct because of the nature of higher education which is heavily dependant on human resources. The nature of university education has changed over the decades in Australia with more students enrolling in higher education courses and class sizes increasing (McKenzie & Schweitzer, 2001). Additionally, typical undergraduates fit into generations X and Y, both of whom are considered to be demanding in their customer service requirements. As a consequence academics are required to offer higher levels of customer service with shrinking resources. Information technology (WebCT) is important in alleviating this resources short-fall by providing on-line, easy to use, relevant personal service for enrolled students.

Auxiliary services are closely aligned to customer service in this context in that the provision of any additional materials would be seen to be a higher level of provision. The on-line offering at this university did not make allowance for subject web site developers to provide auxiliary services such as results calculators and an intelligent search agent. WebCT however has provision to include these types of advanced features if desired by the developer and wanted by users.

The construct of convenience was also considered because of the high incidence of economic and social disadvantages as compared with neighboring regions. It was felt that, because WebCT allows students to access a plethora of relevant subject materials at any time with on or off campus, access convenience was an important aspect to investigate. WebCT as a “one stop shop” is likely to contribute to an increase in students’ leisure time and their perception of being more highly satisfied with the level of service than if this facility were not available.

The final construct is esteem and this is investigated by asking respondents about their perception of how they viewed themselves and how they believed they were viewed by others as a WebCT user. Research has shown that self-esteem and online learning are closely inter-related in both secondary school and higher education contexts (Department of Education Training and the Arts - Queensland, 2006; University of Tasmania, 2007). There would appear to be a positive relationship between esteem and the use of Information Communication Technology (ICT) with users reporting greater self-esteem when relationships are developed through electronic means (Curtis & Lawson, 2001).

Case Study – Effectiveness of WebCT in Facilitating Student Learning for Undergraduate Marketing Subjects

This study focuses on on-campus students enrolled in four undergraduate marketing subjects that have been using WebCT to facilitate learning. One of the subjects, Introduction to Marketing (BHO1171) is part of the core of the Bachelor of Business at the university. The other subjects, Product and Pricing Strategy (BHO2251); Business to Business Marketing (BHO2253) and Marketing on the Internet (BHO2407) are the second-level subjects in the marketing major and electives for other business students.

The subjects were taught in two hours of lectures, followed by a tutorial of one-hour duration on a weekly basis. The course homepage (using WebCT platform) provided current information, such as announcements from course instructors, the subject guide, lecture notes, assessment details and additional documents related to the subject.

Method

Data was collected using a one page questionnaire administered in the final week of the lecture in semester 2, 2006. The students were currently pursuing their Bachelor of Business degree at the university across three campuses. Students were informed that it was anonymous and not part of the assessment regime of the class. Both the survey and protocol were approved by the University’s ethics committee.

The survey was designed to cover a range of issues identified in the literature as possibly impacting on educational outcomes. Students were asked a total of thirty two self-developed questions most of which required a response on a five point Likert scale with 'strongly disagree' and 'strongly agree' at the extremes. This approach has been used previously in the literature which examines teaching and learning methods (Harasim, 1999). The majority of questions focused on students' perceptions of the value of WebCT in facilitating learning, and as a communication tool with the main issues being ease of use, enjoyability, time saving and customer service.

Results

Student Profile

The response number to the questionnaire survey was 328, composed of students enrolled in four marketing subjects (as listed above). The respondents were also asked to state their age, gender, level of experience as a computer user and the subject in which they were enrolled for the purpose of their WebCT use. The results showed that more than 79% of the respondents are between 18-24 years of age. Gender of respondents was evenly distributed, with 55.5% indicated for female and 44.5% male. Level of experience as a computer user, whilst a self-evaluated question, was asked because it was felt that, with the current high level of computer use in the community, respondents would be sufficiently conversant with computer use to give an accurate self-analysis (Nielsen, 2000). Seventy percent (70%) of respondents considered themselves to be either 'a bit experienced' or 'experienced'.

Factor Analysis

Confirmatory factor analysis was used to determine whether WebCT would provide students with an environment in which they would have the optimum opportunity to achieve their best scholastically. Current literature suggested that students wanted and would benefit from an interface that was useful, robust, intuitive and entertaining to use. Upon further investigation more particular aspects of WebCT's benefits were built upon to create hypothetical features such as a calculator to assist students to estimate future assessment results in order to extrapolate future final grades. Given the current emphasis on time-poor consumers, it was considered important that WebCT be examined in relation to how much time students felt they saved by having this tool. WebCT was looked at in regard to providing a pleasant and agreeable learning environment. Convenience was also considered relevant given the context of the modern generation and their desire for easy availability of products and services and the time saving aspects that allow them more time for leisure. Esteem was reported as being influenced in a learning environment through development of relationships (Curtis & Lawson, 2001).

There were 32 statements of which 26 used a five point Likert scale. These statements cover a broad range of topics including effort and performance expectancy, social influence, and attitude toward using technology (Viswanath, Morris, Gordon, & Davis, 2003). These topics are built upon the constructs of ease of use (Adams, Nelson, & Todd, 1992), enjoyment (Liao & Cheung, 2002), esteem (Viswanath, Morris, Gordon, & Davis, 2003), time saving (Viswanath, Morris, Gordon, & Davis, 2003), and convenience (Liao & Cheung, 2002; Viswanath, Morris, Gordon, & Davis, 2003).

Of the 32 statements, 12 were adapted from previous research by Maenpaa (2006). The original study focused on consumers' perceptions of Internet banking services whilst this study examines education under secure internet access. Therefore, those questions in the prior study (Maenpaa, 2006) that dealt with convenience of managing loans, security, personal finances and investment were considered inappropriate for this study and thus were deleted.

Table 1
Rotated Component Matrix

	Component				
	1	2	3	4	5
It was easy for me to familiarize myself with WebCT's functions and information sites.	0.858				
My interaction with WebCT was clear and understandable.	0.831				
I found WebCT user friendly and easy to use.	0.830				
Learning to operate WebCT was easy for me.	0.798				
I would like to read versatile daily news about WebCT.		0.799			
Sometimes it is fun just to browse around and see what can be found in WebCT.		0.704			
By using WebCT I stand out from ordinary people who use traditional methods.		0.639			
By using WebCT I give a modern impression of myself to other people.		0.571			
It would be fun to have more visually interesting multimedia materials available on WebCT.		0.514			
By using WebCT I have more time for my family/friends/hobbies.			0.762		
By using WebCT I get better service than from the face - to - face lecture.			0.755		
Using WebCT shortened the amount of time I spent on my study.			0.674		
I get all the information I need for taking care of my study more conveniently from WebCT than from the face - to - face lecture.			0.660		
Using WebCT for my studies improved my study performance and effectiveness.			0.491		
When I need more support or advice from the lecturer or tutor, I prefer email or on-line chatting services in WebCT.			0.343		
It would be useful to have a search agent in WebCT that would search for me information about topics I have chosen.				0.730	
It would be useful to have a calculation tools				0.691	
It would be useful to have a calculation tool so that I can tally my progressive results.				0.671	
It would be useful if I could view all my assessment results.				0.497	
It would be useful to exchange opinions with other colleagues or instructors under 'Who's online' about topics related to subjects in which I am enrolled.				0.495	
It would be nice to have different voice effects in WebCT, for example signalling that the course instructor or any colleagues logon to WebCT.				0.409	
It would be useful if I could be provided with information about other subjects that are similar in some way to one of the subjects in which I am enrolled.					0.798
It would be useful if I could view other subjects offered by the Faculty of Business and Law, on WebCT in which I am not enrolled.					0.702

The 23 statements used had an inter item scale reliability (alpha) co-efficient of 0.861. The eigenvalues produced in the extraction were examined on a scree plot and revealed a clear cut-off point with five factors. The five factors with eigenvalues greater than one are reported here. A principal components analysis with varimax rotation was used to investigate whether these items loaded in an orderly way on five components. Five factors, explaining the 48.68 percent of the variance were extracted and are identified in Table 1. The five factors, and the variables which loaded on them, are described in Table 2: Rotated Component Matrix.

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Based upon these loadings, five factors were named and they are presented in Table 2, Factor Names.

- a) Extraction Sums of Squared Loadings
- b) Rotation sums of squared loadings

The individual factor scores had inter-item scale reliability (Cronbach's Alpha) co-efficients ranging from 0.892 to a low of 0.703. Given that coefficients above 0.70 are considered acceptable (Furnham, Steele, & Pendleton, 1993), the five factor model is sound. The model reflects similar factors as those proposed by Maenpaa (2006) with some movement of items across the developed factors. Although this model is not as comprehensive as that of Maenpaa (2006) there are strong similarities. Maenpaa's factor of 'entertainment' is here split across the factors of 'enjoyable and positive self image' and 'usefulness'.

Table 2
Factor Names

Factor Number	Factor Names	%Variance a	% Variance b	Maenpaa's factors
Factor 1 ($\alpha=.892$)	Ease of use	23.909	12.942	Convenience ($\alpha=0.643$)
Factor 2 ($\alpha=.768$)	Enjoyable and positive self-image	11.086	10.768	Status ($\alpha=0.602$) Entertainment ($\alpha=0.670$)
Factor 3 ($\alpha=.765$)	Time saving	7.494	10.287	Convenience ($\alpha=0.643$)
Factor 4 ($\alpha=.724$)	Usefulness	38.480	9.958	Auxiliary features ($\alpha=0.643$) Entertainment ($\alpha=0.670$)
Factor 5 ($\alpha=.703$)	Auxiliary features	2.346	4.727	n/a on these items

Conclusion and Future Research

Society has entered an era in which web-based learning is fundamentally changing our culture and impacting upon every aspect of life, including how people learn. Knowing how to critically and strategically use web-based learning tools is becoming an ever-increasing part of being literate, as information technology has become the pen and paper of current times and the lens through which society experiences much of its world (Warlick, 2006), and the communication channels of choice for many. This paper set out to confirm the work of Maenpaa by adapting their model from Internet banking to on-line education support. The results indicate that the service framework and the corresponding adaptation appear to be a viable model for educators to conceptualise the way students respond to using these technologies.

This was an exploratory study identifying the effectiveness of WebCT in facilitating student learning for undergraduate marketing subjects. Further research is needed to expand the scope of this paper and to see whether these results can be generalised in other university settings, including postgraduate programs. It would be interesting to research whether postgraduate and undergraduate students have similar perceptions or whether their views and needs are different.

References

- Adams, D. A., Nelson, R. R., & Todd, P. A. (1992). Perceived usefulness, Ease of Use, and Usage of Information Technology: A Replication. *MIS Quarterly* (June), 227-247.
- Aggarwal, A. (2000). *Web-based learning and teaching technologies*: Ideal Group Publishing.
- Alfansi, L., & Sargeant, A. (2000). Market segmentation in the Indonesaina banking sector: the relationship between demographics and desired customer benefits. *International Journal of Bank Marketing*, 18(2), 64-74.
- Barraket, J., Payne, A. M., Scott, G., & Cameron, L. (2000). *Equality and the Use of Communication and Information Technology in Higher Education* (No. DETYA No. 6497 HERC00A). Canberra: University of Technology, Sydney.
- Clarke, T., & Hermens, A. (2001). Corporate developments and strategic alliances in e-learning. *Education + Training*, 43(4/5), 256-267.
- Cox, J., & Dale, B. G. (2001). Service quality and e-commerce: an exploratory analysis. *Managing Service Quality* 11(2), 121-131.
- Curtis, D. D., & Lawson, M. J. (2001). Exploring Collaborative Online Learning. *Journal of Asynchronous Learning Networks*, 5(1), 21-34.
- Department of Education Training and the Arts - Queensland. (2006). Students at risk gain self-esteem online. Retrieved 27 May, 2008, from <http://education.qld.gov.au/learningplace/>
- Edwards, R., & Usher, R. (2001). Lifelong Learning: A Postmodern Condition of Education? *Adult Education Quarterly*, 51(4), 273-287.
- Furnham, A., Steele, H., & Pendleton, D. (1993). A psychometric assessment of the Belbin Team-Role Self Perception Inventory. *Journal of Occupational and Organizational Psychology*, 66, 245-257.
- Gump, S. E. (2005). The Cost of Cutting Class. *College Teaching*, 53(1), 21-26.
- Harasim, L. (1999). A framework for online learning; The virtual-u. *Computer*, 32(9), 44-49.
- Jacobson, E. (2005). Increasing Attendance Using Email: Effect on Developmental Math Performance. *Journal of Developmental Education* 29(1), 18-26.
- Jun, M., & Cai, S. (2001). The key determinants of Internet banking service quality: a content analysis *International Journal of Bank Marketing* 19(7), 276-291.
- King, R. (1995). What is higher education for? Strategic dilemmas for the twenty-first century university. *Quality Assurance in Education*, 3(4), 14-20.
- Liao, Z., & Cheung, M. T. (2002). Internet-based e-banking and consumer attitudes: an empirical study *Information and Management*, 39(4), 283-295.
- Maenpaa, K. (2006). Clustering the consumers on the basis of their perceptions of the Internet banking services. *Internet Research*, 16(3), 304-322.

- McKenna, B. (2001). Wisdom, learning, and other useless commodities. *Social Alternatives*, 20(2), 31-37.
- McKenzie, K., & Schweitzer, R. (2001). Who Succeeds at University? Factors predicting academic performance in first year Australian university students. *Higher Education Research & Development*, 20(1), 21-33.
- McKimm, J., Jollie, C., & Cantillon, P. (2003). ABC of learning and teaching: Web based learning. *BMJ*, 326, 870 - 873.
- Merron, J. L. (1999). Managing a Web-based Literature Course for Undergraduates. Retrieved 27 May, 2008, from <http://www.webct.com/service/ViewContent?contentID=11751&communityID=-1&categoryID=-1&sIndex=0>
- Nielsen, A. C. (2000). *NetRatings Global Internet Trends*. Melbourne: A C Nielsen.
- Phenix, P. H. (Ed.). (1965). *Philosophies of Education*. London: John Wiley & Sons, Inc.
- Prince, C., & Stewart, J. (2002). Corporate universities - an analytical framework. *Journal of Management Development*, 21(10), pp. 794-811.
- University of Tasmania. (2007). Skills for Flexible Learning. Retrieved 27 May, 2008, from <http://www.utas.edu.au/coursesonline/flexibleskills.htm>
- Viswanath, V., Morris, M. G., Gordon, D. B., & Davis, F. D. (2003). User Acceptance of Information Technology: Toward a Unified View. *MIS Quarterly*, 27(3), 425-478.
- Waite, K., & Harrison, T. (2004). Online banking information: what we want and what we get *Qualitative Market Research: An International Journal* 7(1), 67 - 79
- Warlick, D. (2006). Curriculum is dead. 2 cents worth. Retrieved 27 May, 2008, from <http://davidwarlick.com/2cents/archives/420>
- Watts, C., & Pickering, A. (2000). Pay as you learn: student employment and academic progress. *Education + Training*, 42(3), 129 -134.
- Woodfield, R., Jessop, D., & McMillan, L. (2006). Gender differences in undergraduate attendance rates. *Studies in Higher Education*, 31(1), 1-22.

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Editor's Note: This is a valuable area of research. Until Distance Education courses can demonstrate comparable student retention rates compared to face-to-face it will be difficult to demonstrate parity in quality of instructional formats. The configuration of pressures on the distance learner may play a significant and critical role in retention.

Preparing and Retaining Students in Online Courses

Chris Brittan-Powell

USA

Abstract

This study evaluated the effect of a student instructional technology training program on college student retention in an online course. Results showed that the training program had a significant impact on students' successful completion in the course. Furthermore, the training improved students' academic performance.

Addressing Student Retention in Online Courses

A vast number and types of instructional technologies are now available to colleges and universities. Therefore students are now often able to choose whether to take a course in either a traditional face to face (f2f) classroom setting or in a distance education (DE) learning context via the internet. This change has led to many opportunities within the educational environment principally because it increases student access, but has also exposed some concerns as well, especially with the issue of student retention.

While there are many positive features, DE courses have lower retention rates than f2f courses (Diaz, 2002; Parker 1995; Snyder, 2001). Lynch (2001) reported that, in comparison to f2f courses, dropout rates in fully online courses are as high as 35 to 50%. There may be many reasons to explain this phenomenon, including the need for greater formative student training in the instructional technology (IT) used (Ashby, 2004). From this perspective, a key reason that many students fail to complete an online course is because they do not perceive themselves as being adequately competent in using the IT to engage in the learning process. In such cases, rather than facilitating student learning, IT encumbers their learning. My own DE students have told me of their struggles with and/or withdrew from one of my courses for this reason. While anecdotal, this data supports the concerns regarding IT found in the literature (Ashby; Deka & McMurry, 2006; Diaz; Fozdar, Kumar, & Kannan, 2006).

It seemed logical therefore to develop an intervention that could potentially mediate the impact of students' actual and perceived efficacy in using the course specific IT. Specifically, it appeared that an IT orientation and support program might positively impact student retention in a DE course. The belief was if students felt more competent utilizing the IT involved in the learning process, then they might more fully engage in that process and thereby increase their learning. Such a process might also help mediate the differences in student retention between f2f courses and DE courses. Given this reasoning, the specific research questions guiding this study were:

1. Does the implementation of a pre-semester student IT training program for academic coursework positively affect the percentage of DE students who complete the course as well their academic performance (grades)?
2. Do students perceive the use of a pre-semester student IT training program as enhancing their performance in a DE course?

Method

Participants and Procedures

This study was conducted at a moderately sized Historically Black College/University (HBCU) where the majority of students (approximately 79%) are women. Data was obtained across three consecutive semesters. In each respective semester, a different format of the same advanced undergraduate class (Psychological Research) was offered: 1st) traditional f2f seminar style, 2nd) via DE without a pre-semester training, and 3rd) via DE with training. All semesters used the identical set of lecture materials, textbook, assignments, f2f office hours, and grading method.

The f2f course section was taught in a traditional classroom setting. A Course Management System (CMS) (Blackboard®) was used to post relevant course information to students, but student usage of the CMS was not required. The DE sections of the course were primarily delivered using Blackboard (Bb[®]) and a Lecture Capturing System (LCS) (Tegrity®). The LCS allowed the instructor to create, and post for student viewing, audio-visual digital recordings of all PowerPoint based lecture materials. Students had access to the online course 24 hours a day – seven days a week via the internet. For all course delivery formats noted above, exams were delivered in a closed book/notes f2f setting.

Traditional f2f Students The ages of the traditional f2f students ranged from 19 to 44 years ($M = 23.22$ years, $SD = 1.57$ years, $n=34$), 84 percent were women, and all participants self identified as Black. Retention data from this group was included to provide a general comparison for the Fully Online format.

Fully Online (No-Training) Students These students took the course in an online format but did not receive a pre-semester IT training program. The average age of these students was 22.19 years ($SD = 1.33$ years, $n=33$). All but three of these students were women, with two identifying themselves as White and the remainder designating themselves as Black.

Fully Online Pre-Semester Instructional Technology Training Program Students This group was required to participate in the pre-semester training program described below. The mean age of this set of students was 22.81 years ($SD = 2.46$ years, $n=37$), the majority of this group's participants were women (85%), and most participants identified themselves as Black (95%), with the remaining (5%) identifying as White.

Pre-Semester Instructional Technology Training Program

This training program was implemented for the course in response to second semester students' feedback regarding their perceived readiness to utilize the IT associated with the online course format. Therefore, a mandatory training was established for all students in which they met with me to go over how to successfully utilize the IT. The workshop was offered at various times and days and consisted of two key parts which lasted a total of approximately 90 to 100 minutes. In the first half of the training, I modeled for students how to: a) log into and maneuver in the CMS in general and the manner that they should for this specific course, b) download and print PowerPoint lecture files, c) take online quizzes, d) post notes in discussion board areas, e) and view lectures using the LCS. The second half of the training consisted of students performing these actions themselves. I made sure to answer all questions and to have handouts for all necessary IT related course activities.

Measures

Training Effectiveness. At the conclusion of the DE with training semester, this section of students was asked to rate on a seven point Likert scale (1 – not helpful at all to 7 – extremely helpful) the degree to which the pre-semester IT training program aided their ability to effectively function in the DE class.

Academic Performance. The final course numerical grade served as the measure of academic performance and could range between 0 and 100. All students, across all three conditions, received identical midterm and final exams in a f2f setting. In addition, all students received an identical set of 10 quizzes during the semester and were taken through the CMS under identical conditions while test security was maintained throughout the study.

Student Retention. This variable was operationalized as the percentage of students who completed the course to those who were enrolled.

Results

This study sought to address several questions about the effectiveness of IT. From an IT perspective, the most important question was whether the implementation of a f2f pre-semester student instructional technology training program influenced the percentage of students who completed the course. The respective retention rates for the various course delivery modalities were found to be: f2f 73% (which approximately is the same as this HBCU's institutional average), DE (No-Training) 76%, and DE (Training) 87%. This showed that the IT training had a positive impact on student retention. Furthermore, the IT training program was found to have a positive impact on student academic performance (grades) between the two DE courses, with the group that received IT training doing better ($t(68) = 7.08, p < .01$ (two-tailed)). The respective mean average course grade for the DE (No-Training) course was = 82.43 ($SD = 4.54, n = 33$), and for the DE (Training) course was 86.62 ($SD = 3.92, n = 37$).

The last research question investigated whether DE students who received the pre-semester training perceived it as beneficial to their performance in the course. For this question, students were asked a single seven-point Likert question to this effect. Students' average rating of this question was 6.21 ($SD = .82, n = 35$). Students perceived the training to be helpful ($t(33) = 8.43, p < .001$ (two-tailed)).

Discussion

This study principally sought to evaluate one strategy for advancing students' success in DE courses. Prior to the study being initiated, substantial numbers of students had made requests to me that a required advanced undergraduate course be offered in a DE format to offset otherwise competing demands and scheduling conflicts that made it difficult for them to regularly attend the course and matriculate through the departmental program. These are common retention issues at many HBCUs. Furthermore, student retention in the f2f modality of this advanced undergraduate course had historically been problematic and therefore their suggestion to change the course format to DE was heeded. However, review of the exigent literature shows that retention has historically been a problem area in DE courses (Ashby, 2004; Deka & McMurry, 2006; Diaz, 2002; Fozdar et al., 2006, Lynch 2001; Parker 1995; Snyder, 2001). In the case of this study, the retention of students who had taken the course in a f2f format (73%) was roughly equal to when the DE format was offered without training (76%). This finding is notable and different than prior research that showed that the retention in DE courses tends to be lower than f2f courses, and may be at least partially due to the use of the LCS. LCS are not currently used in the typical DE course and students have told me make it much more dynamic in nature. Further research on the impact of LCS on retention and grades is currently being conducted.

A common theme in students' concerns during the first semester that the course was offered via DE was that students had difficulty effectively using the IT. They stated that by the time they might have adequately mastered the IT, they had fallen too far behind in the coursework and were at a higher risk for dropping the course. Therefore, in the subsequent semester, IT pre-semester training intervention was incorporated into the course. There was substantial change in the

retention rate for this semester (86%), suggesting that prior IT training had a positive impact on student retention in fully online courses. Furthermore, grades improved when they had taken the pre-semester IT training. As a group, online students who had such training had statistically significant higher grades than those who did not. These data suggest that not only does the IT training help online students remain in the course, but they learn more from this modality. This interpretation is supported by the online (IT trained) students themselves reporting that the training had a significantly positive impact on their course performance. Given these findings, it is reasonable to conclude that the inclusion of pre-semester IT training into an online course may be beneficial to student retention and academic performance.

These findings should be understood within the context of limitations of this study. One limitation was that the analysis of one of the retention variables was restricted to use of descriptive statistics due to the sample size issues and based on the sections of a single instructor. A much larger study, potentially consisting of close to 100 academic course sections, would be needed to meet the assumptions of an inferential analysis. Replications across courses and instructors would be beneficial and are ongoing.

In summary, this investigation provides strong support for incorporating pre-semester IT training programs into DE courses. This study found such training to be positively associated with students' retention, grades, and IT self-efficacy. With the great rise in DE courses offered in higher education, the implementation of such course IT training may soon become an ethical imperative. Furthermore, while replication of these findings is merited before larger action is taken, the call for serving our students more effectively should be heard not only by instructors but by departments, schools, and universities as a whole, so that institutionally coordinated programs are offered and the onus is not left simply upon individual instructors.

References

- Ashby, A. (2004). Monitoring student retention in the open university: Detritions, measurement, interpretation and action. *Open Learning*, 19(1), 65-78.
- Deka, T. S., & McMurry, P. (2006). Student success in face-to-face and distance teleclass environments: A matter of contact? *International Review of Research in Open and Distance Learning*, 7(1), 92-115.
- Diaz, D. P. (2002). Carving a new path for distance education research. The Technology Source. Retrieved, January 29, 2008, from http://technologysouce.org/article/carving_a_new_path_for_distance_education_research/
- Fozdar, B. I., Kumar, L. S., & Kannan, S. (2006). A survey of a study on the reasons responsible for student dropout from the bachelor of science programme at Indira Gandhi National Open University. *International Review of Research in Open and Distance Learning*, 7(3), 221-238.
- Lynch, M. M. (2001). Effective student preparation for online learning. Retrieved January 29, 2008, from http://technologysouce.org/article/effective_student_preparation_for_online_learning/
- Parker, A. (1995). Distance education attrition. *International Journal of Educational Telecommunications*, 1(4), 89-106.
- Snyder, T. (2001). Digest of education statistics. Washington, DC: U.S. Department of Education.

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Editor's Note: Adult learners are veterans of a traditional education system. Adults have different needs, and different subject matters attract student with different learning styles who are often involved with work, families, travel, and adult responsibilities. Some methods used for younger students may not be appropriate. Adult learning should be "open and flexible" to facilitate the schedules and responsibilities of adult life.

The Role of Adult Learning-Using Technology for Learning

Myra Sellers

USA

Who exactly is considered an adult learner and how does one become a member in this exclusive club? Johnstone and Rivera's (1926) definition comes to mind: "the adult education participant is just as often a woman as a man, has completed high school or more...and is found in all parts of the country" (Merriam and Caffarella, 1999, p. 47). One of the most rapidly developing areas within education is the study and practice of education for and about adults. How can education continue to meet the needs and enhance the education process for adults?

The notion of learning through life is hardly new, as a glance at Plato's *Republic* reveals. Plato's relevance to modern day informal educators can be seen at a number of levels. First, he believed, and demonstrated, that educators must have a deep care for the well-being and future of those they work with. Educating is a moral enterprise and it is the duty of educators to search for truth and virtue, and in so doing guide those they have a responsibility to teach.

Second, there is the 'Socratic teaching method'. The teacher must know his or her subject, but as a true philosopher he or she also knows the limits of their knowledge. It is here that we see the power of dialogue - the joint exploration of a subject - 'knowledge will not come from teaching but from questioning'.

Third, there is his interpretation of the differing educational requirements associated with various life stages. In his work the classical Greek concern was for body and mind. There was importance of exercise and discipline, of storytelling and games. Children enter school at six where they first learn the three Rs (reading, writing and counting) and then engage with music and sports. Plato's philosopher guardians then follow an educational path until they are 50. At eighteen they are to undergo military and physical training; at 21 they enter higher studies; at 30 they begin to study philosophy and serve the *polis* in the army or civil service. At 50 they are ready to rule. This is a model for what we now describe as lifelong education (indeed, some nineteenth century German writers described Plato's scheme as 'andragogy'). It is also a model of the 'learning society' - the *polis* is serviced by educators. It can only exist as a rational form if its members are trained - and continue to grow (Smith, 2001).

Distance learning has become the catalyst for adult learning in the 21st century. Many adults are taking advantage of learning via the Internet. As family obligations and work obligations become more mobile, the technology has advanced and become more mobile. R. D. Waller (1956), in his book *A Design for Democracy*, describes a report from the Adult Education committee of the British Ministry of Reconstruction: "Adult education must not be regarded as a luxury for a few exceptional persons here and there, nor as a thing which concerns only a short span of early manhood, but that adult education is a permanent national necessity, an inseparable aspect of citizenship, and therefore should be both universal and lifelong" (1919: 55). This theme was also broadened in Eduard Lindman's (1926) *The Meaning of Adult Education*. Along with his friend and colleague, John Dewey, Lindman argued that:

1. **Education is life:** 'not merely preparation for an unknown kind of future living...The whole of life is learning, therefore education can have no endings. This new venture is called adult education not because it is confined to adults but because adulthood, maturity, defines its limits...' (p. 4-5).

2. **Adult education should be non-vocational:** 'Education conceived as a process coterminous with life revolves about non-vocational ideals... adult education more accurately defined begins where vocational education leaves off. Its purpose is to put meaning into the whole of life' (ibid.: p. 5).
3. **We should start with situations not subjects:** 'The approach... will be via the route of situations, not subjects... In conventional education the student is required to adjust himself to an established curriculum; in adult education the curriculum is built around the student's needs and interests' (ibid.: p. 6).
4. **We must use the learner's experience:** 'The resource of highest value in adult education is the learner's experience... all genuine education will keep doing and thinking together' (ibid.: p. 6-7).

For many adults, learning is an ongoing and important part of their lives. With the development of a self-consciously 'adult education' came the view that education should be lifelong. Experience plays a huge role in whether or not the learning will continue to be important in their life. The perception of learning in certain groups and individuals has greatly varied. In the past, adults aged fifty or older viewed learning as of little value and working beyond sixty or sixty-five as unwarranted unless finances dictated. Health, environment, ethnic differences all played a part in the viewpoint of whether continued learning was necessary and still plays a part. Many of these attitudes were linked to a study by Moody (as cited in Lowy and O'Connor, 1986) suggesting that adults perceive learning from the vantage point of approximately how much time is left to live. Although never exact, this perspective of time dramatically influences educational goals of the adult.

Though clearly convenient for the learners, **Jorgensen (2002)** and others have questioned: Is distance learning an effective substitute for face-to-face teaching? Also, does this impersonal mode of teaching deprive students of quality instruction? Online classes demand a different type of approach from a student from the traditional face-to-face classroom. Students must demonstrate a high degree of autonomy and motivation (**Ladyshewsky 2004**). Using tools that enable both synchronous and asynchronous interactions, the instructor can create learning content, and students can participate, communicate, and collaborate. Instructors can deliver automatically scored assessments and surveys, thereby giving students immediate feedback (**Blackboard 2004**). Technology is important in students' review of their learning experiences and what is expected from the instructor. The shifting demographics, new technologies, the entrance of commercial organizations into higher education, the changing relationships between colleges and the federal and state governments, and the move from an industrial to an information society. In addition, the convergence of publishing, broadcasting, telecommunications, and education is blurring the distinction between education and entertainment. A variety of knowledge producers will compete to create courses and other educational services, to develop new ways to distribute knowledge, and to engage larger audiences. (Levine, 2003).

The appeal of online learning and e-learning for institutions and policy-makers is that it frees learners from a rigid timetable of attendance at a college or other learning institution; it enables self-paced learning and is purported to be more cost effective (Gatta 2003).

Many adults, aged sixty to seventy, grew up in the pre-World War II era. Learning was taught, to a great extent, by the instructivist method, by a teacher and knowledge was in the possession of the teacher. Lesson plans were put into motion by the teacher and the material was learned and processed by the student. The student was assessed on their remembering the materials and the skills they possessed. Many students in this era by the seventh grade had dropped out of school out of necessity to go to work and help support their families. Many of these same students were called into armed services and went to serve their country during World War II. Some of the

knowledge obtained especially the reading and writing skill, was helpful during this time and was used by students in their jobs. But mastery of knowledge and schooling was not the most important thing in many families' minds. Survival was and many students never returned to the classroom.

Whether based in traditional or virtual settings, higher education is going through a transformation, where the focus is shifting from a *teaching* environment to one of *learning* (Levine, 2003). The old model, based on a pedagogical structure, emphasized a commonly shared process where instruction was calculated by “seat time, or the amount of time each student is taught. Students study for a defined number of hours, earn credits for each hour of study, and, after earning a specified number of credits, earn a degree” (p. 21). Students will come from diverse backgrounds and will have a widening variety of educational needs. New technologies will enable them to receive their education at any time and any place—on campus, in the office, at home, in the car, or on vacation. Each student will be able to choose from a multitude of knowledge providers the form of instruction and courses most consistent with how he or she learns. (Levine, 2003, p. 20)

Adult education is on the rise as is the demand for programs that are beneficial to the adult learner. Adult learners, for the most part, ask themselves self-assessment questions before beginning a task. Adults, typically, set for themselves a strategy of learning. The goal for most adult learners is that they understand and can apply the new information to their present lives. Adult learners will, for the most part, continually ask themselves if they understand the information being given them and whether the information meets their needs and expectations.

Unlike in a traditional course, online students cannot passively listen to a lecture while taking notes. Chad Hanson (2000, 1), a professor of sociology, described a familiar classroom scenario.

When the first discussion date rolled around, I walked into class with genuine enthusiasm. . . . I followed in the footsteps of one of my fondest mentors by issuing a familiar challenge. ‘Okay,’ I said, ‘who would like to begin?’ No one began. There were no hands in the air. I did not hear the cacophony of voices I had come to know so well in graduate school—everyone anxious to support or refute the claims of the author now up for discussion. Instead there was silence. . . . Twenty-nine pairs of eyes pointed in my direction. So I began. I continued, and eventually I finished the discussion myself. Meanwhile while, students wrote in their tablets. They took what looked like detailed notes while I talked, and that was gratifying, but not part of my plan.

“There are two perspectives that educators view with working with adults: the individual and the contextual. Until recently, the individual perspective, driven by the psychological paradigm, was the predominate way we thought about learning in adulthood. Two basic assumptions form the foundation for this perspective. The first is that learning is something that happens internally, primarily inside of our heads. In essence, the outside environment is given little if any attention in the way we think and learn. Second, this perspective is based on the assumption we can construct a set of principles and competencies that can assist all adults to be more effective learners, no matter what their background or current life situation” (Merriam & Caffarella, 1999).

The first assumption—that learning is something that happens internally, primarily inside our heads—was also expressed by Malcolm Knowles in his 1970 book, *The Modern Practice of Adult Education: Andragogy vs. Pedagogy*. He stated:

“there were four assumptions with adults and learning: self-concept, experience, readiness to learn and orientation to learning. The self-concept principle reflects the self-directing character of the adult learner rather than dependent nature of the child. The

principle of experience simply acknowledges the need to draw on the adult's rich source of experience. In contrast, the pedagogical framework perceives the child as not possessing sufficient life experience to effectively incorporate into the learning environment. Readiness to learn indicates that adults differ from children in their developmental stage and as a result have special learning needs. The assumption implies that adult learning needs tend to focus more towards their social roles. On the other hand, pedagogy claims that the learning needs of children are geared towards physiological and mental development stages. Orientation to learning assumes that adults put more value on being able to practically apply their learning while pedagogy suggests that children naturally focus on postponing immediate application for future needs. These four sets of assumptions establish significant guidelines for creating adult learning environments” (p.39).

What then is the implication of higher education with respect to adult learning? Patricia Cranton (1994) states: "Perspectives on adult learning have changed dramatically over the decades. Adult learning has been viewed as a process of being freed from the oppression of being illiterate, a means of gaining knowledge and skills, a way to satisfy learner needs, and a process of critical self-reflection that can lead to transformation. The phenomenon of adult learning is complex and difficult to capture in any one definition” (pg. 3).

Successful distance learners share some distinctive features in their mode of study (Littlefield 2005):

- They work independently, are self-motivated and persistent, and do better without people giving them constant guidance.
- They seldom procrastinate, realizing that timelines are important and that neglecting to turn in their work on schedule may end up delaying completion of their studies.
- They demonstrate good reading and writing skills, which are essential for acquiring most of the course information. Though some distance learning courses offer video recordings and audio clips, these are not sufficient to master the competencies. They are able to remain on task in spite of relentless distractions, such as frequent interruptions while learning at home.

Although students' primary reasons for choosing their course had not been the online mode of delivery *per se*, all acknowledged both the importance of developing and using information and communications technology (ICT), e-learning or online learning is one way of overcoming barriers. ICT skills and the advantages of learning in the rich, multi-media environment provided by online learning (Peng *et al.* 2006). Learning online transcended geographical, physical, visual and temporal barriers to accessing education, and reduced socio-physical discrimination (Debenham 2001). The adoption of ICT in education is being seen throughout the world as a means of effectively educating students, and orienting and preparing them for employment (Fox 2002, MCEETYA 2007b, US Department of Education 2004).

Research by Matas and Allan (2004) has also indicated the benefits to adult students of using online learning portfolios to develop generic skills, transferable to the workplace. Additionally, ICT is purported to appeal across the social spectrum and age range. Technology has proven to be of great benefit in the teaching of online courses and students choosing to take e-learning classes.

The adult population has become increasingly more visible mainly because of the increasing size of the group. Learning in an aging population has become an afterthought to some in the education field. Programs of study are offered as continuing education in community organizations, some educational institutions, and churches just to name a few. But the diversity of the programs does not compliment what is offered to younger students. Education for adults is

seen as an add-on and outside the traditional learning establishment and programs of study offered in traditional institutions do not relate to older non-traditional students in general areas of interest. While some educational institutions try, many fail to reach the masses. Manheimer, Snodgrass, and Moskow-McKenzie (1995) pointed out the lack of a single dominant model of older adult education: "Different groups have a stake in older adult education and related policies but view older adults and their education differently. For example, some educational organizations claim or accept responsibility for education which targets a certain group of citizens, older adults being one of them. Aging organizations, on the other hand, claim or accept responsibility for older adult programs that happen to be educational" (p. 121).

Adults want to contribute to their immediate community and society. They want to be seen as viable individuals and, because of age and experience, want their contributions to be seen as worthwhile. Moody (1976) presented a four-stage model of education for the older adult: (1) rejection, (2) social services, (3) participation, and (4) self-actualization. The first stage, rejection, reflects the isolation of the aged in modern societies, in which "old people are, functionally speaking, nonentities" (p. 3). The second stage, social services, defines older adult education as leisure-time activities. The third stage, participation, prepares older adults for new roles in society through breaking stereotypes of old age. The fourth stage, self-actualization, focuses on the potential of older people to psychologically grow through learning. Moody concluded that the most current educational programs were directed at stages three and four, encouraging educators to respond to the needs of the least needy aged. Throughout the past decades, how has educational programs succeeded? It appears success has not quite happened to the extent some have hoped for.

What can be done to encourage more participation in learning in the adult population? How can educators encourage an adult learner to continue in their learning and development of knowledge? Encouragement—the definition is, according to Encarta Dictionary, “support of a kind that inspires confidence and a will to continue or develop.” The pursuit of an adult learner’s goals is different from a young person. Their learning is often self-directed—learners taking the responsibility to learn on their own, to teach themselves something where there is, in many instances, lack of the pressure of time. Adult learners, most often have sensible and logical abilities for planning and guiding their learning. Charles Hayes (1998) states that “when we fail to take control of our education, we fail to take control of our lives. Self-directed inquiry, the process of taking control of your own education... is the lifeblood of democracy” (xiv). Taking control brings the freedom to choose a path where a person would like to go.

In its broadest meaning, 'self-directed learning' describes, according to Malcolm Knowles (1975) a process:

... “in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes” (p. 18).

Knowles (1975) puts forward three immediate reasons for self-directed learning in adults:

“They enter into learning more purposefully and with greater motivation. They also tend to retain and make use of what they learn better and longer than do the reactive learners”(p. 14);

“An essential aspect of maturing is developing the ability to take increasing responsibility for our own lives - to become increasingly self-directed” (p. 15); and

'Students entering into these programs without having learned the skills of self-directed inquiry will experience anxiety, frustration, and often failure, and so will their teachers' (15).

As Merriam and Cafferella (1991) comment, this means of conceptualizing the way we learn on our own is very similar to much of the literature on planning and carrying out instruction for adults in formal institutional settings. It is represented as a linear process. Learning then progresses as 'the circumstances created in one episode become the circumstances for the next logical step' (p. 46).

There has been a shift in much of the literature and policy discussions from lifelong education to lifelong learning. There has been an associated tendency to substitute the term adult learning for adult education (Courtney, 1989). One way is to view learning, as a thought process relating to the learner that can occur 'both incidentally and in planned educational activities', while, 'it is only the planned activities we call...education' (Merriam and Brockett 1997: 6). The shift may, as Courtney suggests, reflect a growing interest in learning, 'however unorganized, episodic or experiential' (ibid.), beyond the classroom. And as stated by Tom Bentley in *The Economist* (October 9, 1999), "it requires a shift in our thinking about the fundamental organizational unit of education, from the school, an institution where learning is organized, defined and contained, to the learner, an intelligent agent with the potential to learn from any and all of her encounters with the world around her" (pg. 42).

As the population continues to age and longer life expectancy fuels the education market for adults, educators will have to continue to look for new programs and how best to entice the adult to continue in their pursuit of lifelong learning or lifelong education whichever term is applicable. Educators must continue to strive to help students reach their goals because as Mark Smith (1996) states: "Real poverty comes from settling for dreams defined by others while remaining bereft of our own."

According to Arthur Levine (2003), there are "three basic types of colleges and universities are emerging. They are "brick universities," or traditional residential institutions; "click universities," or new, usually commercial virtual universities, like Unext.com and Jones International University; and "brick and click" universities, a combination of the first two. If current research on e-commerce is correct, the most competitive and attractive higher-education institutions will be "brick and click." While consumers appreciate the convenience, ease, and freedom of services online, they also want a physical space where they can interact with others and obtain expert advice and assistance face-to-face.

Who will control the brick-and-click institutions? Will the for-profit sector buy "bricks" – build physical plants -- before traditional colleges develop the capacity to operate in the "click" environment? Or will just the opposite occur? And how should each of the nation's colleges determine which of the three categories best meets its goals?" (Levine, 2003). Technology is changing and the role of teaching the adult or non-traditional student must keep up.

References

- Aragon, S. R. (2003). Creating social presence in online environments. *New Directions for Adult and Continuing Education*, 100, 57-68.
- Aslanian, C.B., Brickell, H.M. (1980). Americans in transition: Life changes as reasons for adult Learning. New York: College Entrance Examination Board.
- Ausburn, L.J. (2004b). Course design elements most valued by adult learners in blended online education environments: An American perspective. *Educational Media International*, 4(3), 321-331.
- Bentley, T. (1998). Labour's learning revolution. *The Economist*, October 9, 1999, page 42.
- Blackboard. 2004. Advanced teaching and learning with technology. Available at: <http://www.beyondboundaries.info/index.html>
- Courtney, S. (1989) 'Defining adult and continuing education' in S. B. Merriam and P. M. Cunningham (eds.) *Handbook of Adult and Continuing Education*, San Francisco: Jossey-Bass. 19.
- Cranton, P. (1994). Understanding and Promoting Transformative Learning. San Francisco: Jossey-Bass. 3.
- Gatta, M. (2003). *Findings from the field: early findings of the New Jersey Online Learning Project for Single Working-Poor Mothers*, A Report of the Rutgers University Centre for Women and Work. Available at: <http://www.rci.rutgers.edu/~ncrc/Research/Findings3R.pdf>
- Fox, S. (2002). *Arguments for and against the use of teaching and learning technologies in higher education*, Report, Dublin: Dublin City University. Available at: <http://tojde.anadolu.edu.tr/tojde21/articles/anthony.htm>
- Hayes, C. (1998) Beyond the American Dream: Lifelong learning and the search for meaning in a postmodern world. Wasilla: Autodidactic Press. 365 + xvii pages.
- Johnstone, J.W.C., & Rivera, R.J. (1965). Volunteers for learning: A study of the educational pursuits of adults. Hawthorne, NY: Aldine.
- Jorgensen, D. 2002. The challenges and benefits of asynchronous learning networks. *Reference Librarian* 37(77): 3-17.
- Knowles, Malcolm S. (1970). The Modern Practice of Adult Education: Andragogy Versus Pedagogy. New York: Association Press. 39.
- Knowles, Malcolm S. (1980) The Modern Practice of Adult Education. Revised and Updated. Englewood Cliffs: Prentice Hall Regents.
- Ladyshevsky, R. (2004). Online learning versus face to face learning: What is the difference? Paper presented at the 2004 Teaching and Learning Forum, February 9-10, Murdoch University, Murdoch, Western Australia. Available at: <http://lsn.curtin.edu.au/tlf/tlf2004/ladyshevsky.html>.
- Levine, A. (2003). The Future of Colleges: 9 Inevitable Changes. The Chronical of Higher Education. B10. Available at: http://education.gsu.edu/ctl/Programs/Future_Colleges.htm.
- Lindeman, E. C. (1926) The Meaning of Adult Education. New York: New Republic. Republished in a new edition in 1989 by The Oklahoma Research Center for Continuing

- Professional and Higher Education. 4-7. Lowy, L., & O'Connor, D. (1986). *Why education in the later years?.* Lexington, MA: D.C. Heath and Company.
- Manheimer, R. L., Snodgrass, D. D., & Moskow-McKenzie, D. M. (1995). *Older Adult Education.* London: Greenwood Press. 121.
- Matas, C.P. & Allan, C. (2004). Using learning portfolios to develop generic skills with on-line adult students, *Australian Journal of Adult Learning*, 44(1): 6–26.
- Merriam, S., and Brockett, R. (1997) *The Profession and Practice of Adult Education.* San Francisco: Jossey-Bass. 6.
- Merriam, S. B. & Caffarella, R. S. (1999). *Learning in adulthood.* San Francisco: Jossey-Bass. 46-47.
- Mills, E. S. (1993). *The Story of Elderhostel.* Hanover, N. H.: University Press of New England.
- Ministry of Reconstruction (1919). *Final Report of the Adult Education Committee,* London: HMSO. Republished by University of Nottingham Department of Adult Education. 55.
- Moody, H. R. (1976). "Philosophical Presuppositions of Education for Old Age." *Educational Gerontology.* 1(1), 1-16.
- Moody, H. R. (1993). "A Strategy for Productive Aging: Education in Later Life." In S. A. Bass, G. Caro, and Y. P. Chen (eds.), *Achieving a Productive Aging Society.* Westport, Conn.: Auburn House.
- Sheppard, T. (2002). "The learning journey." *Navy Supply Corps Newsletter.* June-August, 2002. Available: http://findarticles.com/p/articles/mi_m0NQS/is_3_65/ai_90624361
- Smith, M. K. (1996, 2001). 'Lifelong learning', *The Encyclopedia of Informal Education.* Available: <http://www.infed.org/lifelonglearning/b-life.htm>
- Waller, R. (1956). *A Design for Democracy.* London: Max Parrish. 22.

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Editor's Note: The Yashwantrao Chavan Maharashtra Open University in Nashik, India determined that *counselor* better describes the instructor role in distance education. The student is responsible for his or her own learning under the guidance of a counselor. Diagnostic-prescriptive tools determine individual student needs and monitor progress. Interactive multimedia, delivered via a Learning Management System, is complemented by individual tutoring and other learning activities prescribed by the counselor.

Assessment of Counselor's Training Imparted through Multimedia Module in Engineering Programmes of Yashwantrao Chavan Maharashtra Open University

Sunanda More, Sanjivani Mahale
India

Abstract

Quality of education is a major concern of the Open and Distance Learning Education System (ODES) due to globalization of education. Among the various parameters, counseling is said to be one important factor in bringing out quality in distance education. The quality of counseling and overall performance of ODES can be improved by 1) imparting rigorous training to improve the skills required for counseling students, 2) changing the attitude of counselors and students towards distance learning and/or 3) using innovative techniques or media for counseling to achieve better learning. These efforts will definitely help to improve quality of education and reduce the learner's drop-out rate in ODES.

The Distance Education system makes use of counseling in place of teaching to impart various educational programmes and the course. Although the self-instructional study material along with the audio-video support is provided, one can not eliminate the need of "human support" in distance education. This human support is given by the counselors. One major challenge to ODES in the past was how to empower, support and train counselors to provide better counseling to the students? Another was how can we make use of technology during training?

This study was carried out on the counselors of B. Tech. Electronics and Mechanical Engineering Programme of the Yashwantrao Chavan Maharashtra Open University (YCMOU), Nashik, MS, India. This programme is offered through distance mode across all the recognized study centers scattered in Maharashtra State. Counselors were trained with the help of a multimedia module developed on Counseling.

Research findings are helpful in improving our present system teaching and learning. Research findings provide valuable insight for the policy makers, designers and developers of Open and Distance Learning Systems (ODES).

Keywords: Education, Role of Counselor, Role of Student, Learning, Training, ODES, YCMOU, Multimedia, Engineering Programmes, Face-to-Face Counseling, Skills of Counseling

Introduction

The concept of education is as old as human culture itself. Education plays a vital role in development of human potential and thereby in national development. Tripathi & Mukerji (2008), described the education system of India as one of the largest education systems in the world. It caters to the needs of more than 1,028 million people (as per 2001 Census). Education has been accorded prime importance and thus it has found place in the Fundamental Rights (Part III) of the Constitution of India.

Though the expansion of higher education was rapid, only about 10% of the eligible age-group (18-24) is getting the benefits of higher education. This picture clearly shows 93-94% student population is not part of the higher education in India.

This means that the conventional education system has failed to provide equal opportunities to all in terms of access, need-based quality education, and cost effectiveness.

The “Open and Distance Education System (ODES)” is a flexible and learner oriented parallel education system supposed to be capable of providing a better quality education and student support services directly to the learner at a distance. The distance education system is based on three parameters: 1) Self-study, 2) Flexibility and 3) Learner Autonomy. Along with this, academic inputs and support services are provided to the students at their study centers by the counselor and study centre co-coordinator.

Due to globalization of education, the issue about quality of education in ODES has become imperative. Hence quality of education is a major concern before the ODES. Among the various parameters, counseling is said to be one of the important factors in bringing out quality in distance education. Quality of counseling and the overall performance of ODES can be improved by 1) imparting rigorous training to improve the skills required for counseling the students, 2) by changing the attitude of counselors and students towards distance learning and/ or 3) using innovative techniques or media for counseling to achieve better learning. These efforts will definitely help to improve quality of education and reduce the learner drop-out rate in ODES.

Background about Electronics Engineering Programme

The School of Science and Technology of Yashwantrao Chavan Maharashtra Open University, Nashik, started B.Tech. in Electronics Engineering and Mechanical Engineering Programmes in the academic year 2004 through the distance mode in India. The School implemented a few innovative strategies for making these engineering programmes popular among the society for example introduced of various managerial innovations; curriculum was totally revamped to ensure relevance to today’s industry needs, and implemented use electronic media such as e-mail and Internet in its Programmes to support the students and study centers. This is the first technical academic programme in India offered with Internet-based Learning methodology. Now every year student enrolment is increasing; from 2,000 students in 2004 to about 10,000 students in 2008. All over the state of Maharashtra, about 186-248 counselors at 62 different study centers, offer academic support to these students, distributed over 0.3 million km² (about 800 km north-south and 600 km east-west).

Though these programmes are running well and getting student enrollment, School could not equip counselors of these engineering programmes by giving proper orientation/ training about counseling.

Hence, there is a need to train counselors to improve their skills so that they could utilize face-to-face counseling time for effective counseling.

Need for Research

Distance education system makes use of counseling in place of teaching to impart various educational programmes and the course. Although the self-instructional study material along with the audio-video support is provided, one can not eliminate the need of “human support” in distance education.

Those who work for distance education system belong to basically conventional system of education. Counselors working in ODES are basically faculties working in conventional system. For them, concept of ODES, its philosophy, counseling, how to provide better and effective counseling all these aspects are new. They know teaching very well but may not be aware about counseling. Hence proper training is required to those who are part and parcel of ODES.

The researcher feels that the field of counselor's training about counseling has significantly large potential yet to be carefully explored. It is hence essential to better support, train and equips the counselors for the job of counseling in a Distance Learning environment by giving those additional learning inputs and by observing methods of counseling at their study centers.

Role of Students and Counselor

Role of Student

The primary role of the student is to learn. Under the best of circumstances, this challenging task requires motivation, planning, and the ability to analyze and apply the information being taught. In a distance education setting, the process of student learning is more complex for several reasons (Schuemer, 1993).

There are several reasons for taking courses and drop-out reasons of the distant students.

Reasons for taking admission in ODES are to:

1. Obtain a degree for social status
2. Qualify for a better job
3. Qualify for promotion
4. Satisfy the conditions of employer
5. Broaden their education

Reasons for drop-out in ODES are:

1. Problems related to age, other studies, jobs/self-employment, family, health, etc
2. Lack of motivation, feeling of isolation.
3. Lack of immediate support services, rigidity in the system.
4. Poor quality of instruction by the counselor.
5. Unskilled counselor and poor quality of learning material.

Teaching and learning at a distance is demanding. However, learning will be more meaningful and "deeper" for distant students if the students and their instructor share responsibility for developing learning goals and objectives; actively interacting with other students; promoting reflection on experience; relating new information to examples that make sense to learners; maintaining self-esteem; and evaluating what is being learned. This is the challenge and the opportunity provided by distance education.

Role of Counselor

The role of the counselor is to facilitate the process among all the students, provide all kinds of resource and act as a resource himself in the classroom. Lastly the role of counselor is that of researcher and learner with much to contribute in terms of appropriate knowledge and abilities, actual and observed experience of nature learning and organizational capacities. Counseling is much more difficult and different than teaching. Some experts say counseling is a difficult task. The good teacher may not be a good counselor. Counseling is a technique. The counselor should first of all learn this technique. More illustrations and exhaustive thinking is required to practice the counseling on the students. Counseling is the backbone of the distance education system and is one of the strong and important elements of student support services.

The counselor is like a teacher in a conventional system. But actually there is a drastic difference in teaching and counseling. It has been experienced that a good teacher may not be a good

counselor. Apart from content delivery, a counselor needs many more skills than a teacher needs for his job of teaching. In that sense, the term “counselor” is much broader and more meaningful.

The success of the distance education mostly depends on the counselor and his job i.e. counseling. Better quality counseling helps the student not only during his/her course of study but even in his future career. The role of counselor and counseling is of prime importance and needs careful attention. He/ she is the key person who can bridge the gap between the students and the system. Certain efforts have to be made to develop various skills and the attitude required for better counseling in distance education.

Objective and Sample for Research Work

This research study was designed to assess the counselor’s questionnaire about training on the “Generic Module on Counseling”

YCMOU offers this Electronics Engineering Programme through distance mode through the network of 33 recognized Study Centers spread in 8 Regions of Maharashtra as on March 2006.

By a sampling method, researchers selected a total of 17 study centers scattered in Mumbai, Nashik and Nagpur Regions of Maharashtra to examine the counselor’s feedback about counseling. This sample is about 51.5% of the total population of about 33 study centers.

Research Methodology

This research was conducted on a sample of counselors for Engineering Programmes selected from three regions. Training was imparted through the ‘Multimedia Module’ developed by the researcher. With this module counselor were given necessary knowledge and skills required during real face-to-face counseling.

The researcher followed standard practice for multimedia content and script development for this multimedia module. Content was edited by a subject expert and a distance educator. The content was suitably modified as suggested by the experts before the final recording of each module.

This multimedia module was developed in “Camtasia Studio”, and authoring tool designed specially for audio-video recording. The developed project is played in Windows Media Player. This software is freely and easily available on web. Therefore the multi-media CD developed in Windows Media Audio/Video file is very easy to play on a computer system.

The researcher conducted three workshops at Nagpur, Mumbai and Nashik for the approved counselors of B.Tech. Electronics and Mechanical Engineering Programmes.

A well-structured feedback questionnaire was prepared to collect qualitative responses about this module. Accuracy of collected feedback was validated and confirmed during personal interaction. This collected data was analyzed to provide the comments, judgments and suggestions.

Tools Used

Following instruments or tools were used in this research.

1. CD based multimedia module
2. Workshops
3. Questionnaire

Development of Research Tools

A well-structured feedback questionnaire was developed to collect general information on the profile of each counselor and about the impact of each counselor’s training on ODES. Accuracy

of collected feedback was validated and confirmed during personal interaction. This collected data was analyzed to provide comments, judgments and suggestions.

Details of questionnaire designed for the counselors are as shown in Table 1.

Table 1
Design of questionnaire for Counselors

Title of Questionnaire	Type of Questions	
	General	Specific
Questionnaire about Generic Module on “Counseling for the Counselors in ODES”	08 Nos	30 Nos

Steps followed for Development of Training Module

The development process of the multimedia module consists of following important steps. All the steps were followed carefully.

1. Content outline of each module
2. Objectives for each module
3. Script writing for as per the topics
4. Review and modifications
5. Content editing for each module by the content and distance educator
6. Modifications as suggested by experts
7. Final script
8. PowerPoint preparation for each module
9. Screen design and points highlighted on the screen
10. Preparation figures, pictures, tables, charts in power point or its scanning
11. Power point module with notes ready for each module
12. Recording of each module with *Camtasia Studio* authoring tool
13. Editing of audio files
14. Insertion of video files
15. Vetting and modifications of each module
16. Creation of final Windows Media Audio Video file
17. Use of each developed module in training workshops for counselors

Objectives

- **Compare** Open & Distance Education System with Conventional Education System
- **Explain** the term counselling and its type
- **Differentiate** between teaching and counselling
- **Describe** objectives of counselling
- **List out** various methods of counselling
- **Discuss** qualities, skills and roles of a good counsellor
- **Discuss** benefits from face-to-face counselling
- **Discuss** various techniques and tools for counselling

Development of Generic Module on Counseling

This generic module is developed for the following objectives. This module is basically useful to all the counselors associated with the distance education. Sample of screen is shown above.

Brief overview of the content covered in this generic module on counseling is as follows.

Content Outline of Generic Module on Counseling

- About Type of Education
 - Formal, Non-formal and Informal Education
- Paradigm Shift in Education
- Concepts in Education
 - Correspondence, Distance and Open Education
- About Open and Distance Education System (ODES)
 - Evolution of Open and Distance Education
 - Growth of Open Universities
 - Features of Open and Distance Education
 - Learner Support in ODES
 - Comparison of ODES and Conventional Education System
- About Counseling
 - Definitions of Counseling and its Description
 - Activities during Counseling
 - Difference between Teaching and Counseling
 - Characteristics of Distant Learner
 - Types of Counseling
- Counseling Cycle
- Objectives of Counseling
- Counselors
 - Basic Qualities of Counselor
 - Personal Qualities of Counselor
 - Skills of Counselor
 - Roles of Counselor
 - Pre-Counseling Activities
- Methods of Counseling
 - Classification of Counseling
- Benefits from F-F Counseling
- Teaching Tools for F-F Counseling
- Teaching Strategies for F-F Counseling
- Summary

Analysis of Collected Data

Counselors were trained in three different workshops for the proper implementation of both the methods of counseling before collecting the well structured feedback. Accuracy of the collected feedback was validated and confirmed during personal interactions. This data was analyzed using advanced statistical methods and T-test to ensure high accuracy in data analysis.

Data Analysis of Counselor's Feedback

Profile of Counselors

Profile of counselors who participated in three different workshops conducted by researcher for the counselors are as shown in Table 2.

Table 2
Profile of counselors participated in training

Item	Workshop 1	Workshop 2	Workshop 3	Total	%
Place of Training	Mumbai	Nagpur	at Nashik	3 Nos	
No of Counselors	25	29	29	83	100%
Male	19	22	28	69	83%
Female	6	7	1	14	17%
Post Graduate	6	11	18	35	42%
Under Graduate	19	18	11	48	58%
SC Head or Coordinator	6	5	14	25	30%
Counselor	19	24	15	58	70%
Polytechnic	20	12	7	39	47%
Engineering College	2	12	19	33	40%
Other	3	5	3	11	13%
Upto 5 yrs Experience	20	22	20	62	75%
Above 5 yrs Experience	5	7	9	21	25%

A total of 83 Counselors attended training on the “Basic Module on Counseling”; 83% were male and 17% were female counselors. About 58% counselors had Undergraduate qualification and 42% had Postgraduate qualification in their discipline. In training, 30% had additional responsibility like Study Centre Head or Coordinator and 70% were counselors. 47% of counselors were associated with polytechnics, 40% with engineering colleges and 13% were associated with other types of study centres. 75% of counselors had 0 to 5 years of educational or industrial or professional experience and only 25% of counselors had more than 5 years experience. Graphical presentation of the profile of counselors who participated in three different workshops are shown below.

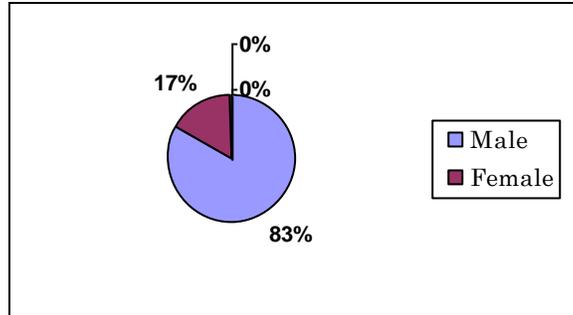


Fig 1: Classification on the basis of gender

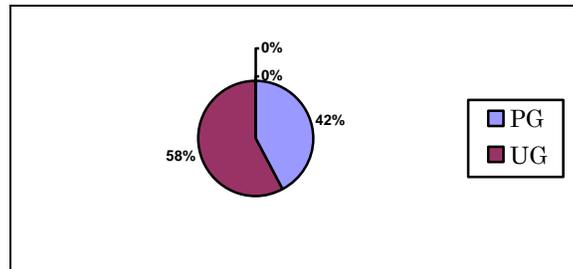


Fig 2: Classification on the basis of qualification

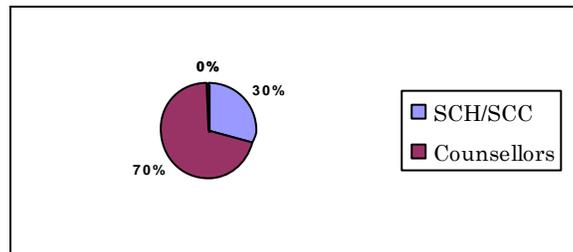


Fig 3: Classification on the basis of position

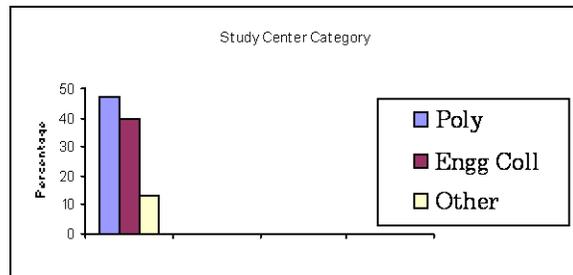


Fig 4: Classification on the basis of SC Category

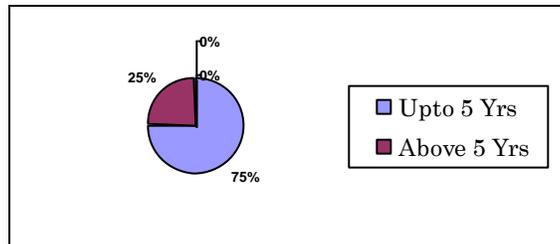


Fig 5: Classification on the basis of counselor's experience

Generic Module on “Counseling for the Counselors in ODES”

A total 30 questions were asked on the content covered in the Generic Module on “Counseling for the Counselors in ODES.” A total 83 counselors participated in three different training *cum* orientation workshops. The generic Module on “Counseling for the Counselors in ODES” was played during the workshop, this questionnaire was circulated and at the end, counselors submitted their feedback.

The responses for each statement were on 5-point scale as Strongly Agree, Agree, Strongly Disagree, Disagree and No Opinion. From these responses, the responses for Strongly Agree and Agree were clubbed together to Strongly Agree (SA). Similarly, the responses for Strongly Disagree and Disagree were clubbed together to Strongly Disagree (SD). Since the responses for ‘No Opinion’ was negligible, it was ignored. Details of Questions, responses and percentage for each question are shown in Table 3.

**Table 3 (a)
Responses of Counselor**

Q 1: ODES is mixed-mode design of formal, non-formal and informal type of education.										
Q 2: ODES is flexible, open and learner-centric education system.										
Q 3: Counseling means to help, guide and support learners to solve their difficulties.										
Q 4: Counselor should talk more during counseling session.										
Q 5: There is no difference between Counseling and Teaching.										
Q 6: Counseling means Tutoring and Non-academic Counseling.										
Q 7: The job of the counselor is to evaluate learner’s progress and provide feedback.										
Q 8: Objectives of counseling are to master the learner in course content and improve their skills by expanding knowledge.										
Q 9: During counseling, the whole syllabus shall be taught by the counselor.										
Q 10: Advance planning and scheduling for counseling helps learners and counselor.										
Responses	Q 1	Q 2	Q 3	Q 4	Q 5	Q 6	Q 7	Q 8	Q 9	Q10
SA	95%	98%	100%	52%	28%	63%	95%	98%	52%	97%
SD	3%	-	-	43%	67%	26%	1%	1%	41%	3%

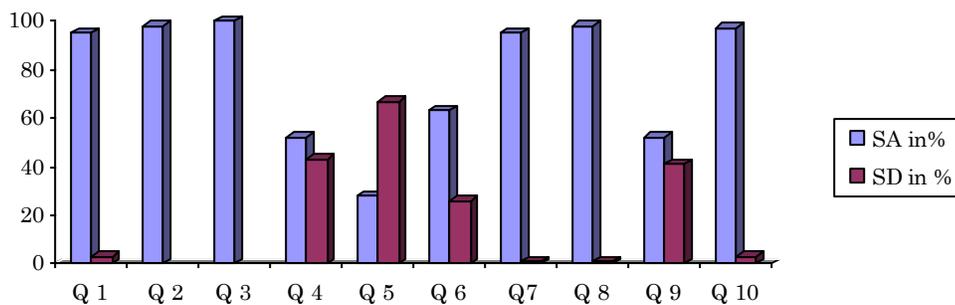


Fig 6 (a): Responses of counselor

Table 3 (b)
Responses of counselor

Q 11: Use of new technology during counseling is prohibited.

Q 12: Any well-qualified and experienced person having faith and positive attitude about ODES philosophy can function as a Counselor.

Q 13: Face-to-face counseling in a classroom is an asynchronous method of counseling.

Q 14: To motivate learner for self-learning is one of the objective of counseling.

Q 15: Counselor should not be genuine for the learner’s difficulties about the course, curriculum, and evaluation.

Q 16: Counselor mostly has to deal with learners’ feelings and generally have to work on an affective level.

Q 17: During Counseling, learner should talk more with the counselor and among the learners to solve their difficulties.

Q 18: Discussion on the topics shall be avoided during counseling.

Q 19: Use of humor during the counseling can help the learners to regain.

Q 20: Counselor shall have good communication, listening and monitoring skill for counseling.

Responses	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20
SA	17%	89%	55%	96%	19%	87%	91%	18%	87%	100%
SD	79%	5%	37%	-	73%	8%	8%	75%	2%	-

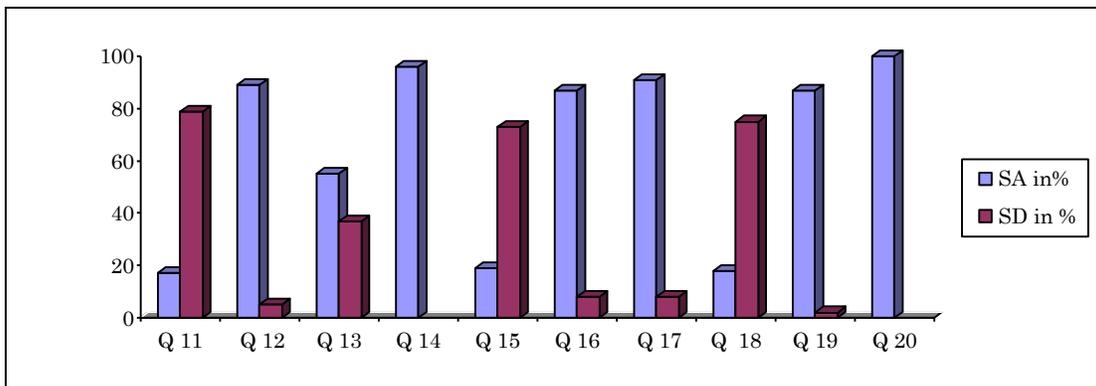


Fig 6 (b): Responses of counselor

**Table 3 (c)
Responses of Counselor**

Q 21: As per the course content, counselor shall decide strategy for counseling.
 Q 22: Counselor shall not use various methods for counseling.
 Q 23: Most of the time distant learners are adult and have previous experience.
 Q 24: During face-to-face counseling learner gets direct and clear knowledge from the counselor.
 Q 25: Learner gets psychological and emotional support during face-to-face counseling.
 Q 26: During face-to-face counseling, interaction and learning environment motivates the learner.
 Q 27: Group learning strategy and model demonstration enhances learning of the learner.
 Q 28: Computerized LCD Presentation saves lot of time and energy of counselor and learners.
 Q 29: During counseling session, presentation by each group of learner builds confidence and knowledge of the learners.
 Q 30: Learners should not ask questions during face-to-face counseling.

Responses	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Q30
SA	99%	17%	82%	87%	91%	87%	99%	92%	98%	11%
SD	1%	77%	11%	8%	4%	8%	1%	2%	-	85%

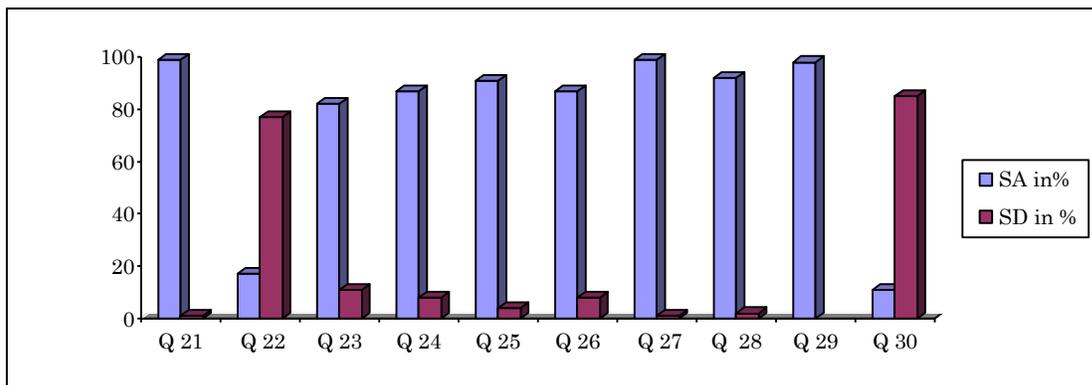


Fig 6 (c): Responses of counselor

From these Tables and Figures, it is clear that, on average, more than 95% of the counselors have positive opinions about the counseling in ODES. They could get through knowledge about ODES and its philosophy and the difference between Distance Education and Open Learning. They understand learning needs of heterogeneous group of learner. Their ideas and concepts about how to conduct counseling better are clear. They could recognize the difference between teaching and counseling. They were aware about different skills and methods required for counseling.

Conclusions

- From the selected sample of counselor's feedback analysis, it was concluded that the training imparted through 'Generic Module on Counseling' was effective. Counselors could receive knowledge and skills about counseling.
- Though counselors were highly qualified and experienced in Engineering discipline, they were aware of only a few things about ODES. They could understand concepts and ideas about ODES and how to conduct counseling with various skills and methods very well when exposed to this training.
- Counselors suggested conducting this type of training programmes regularly for the counselors and also for students.

Scope and Limitations of the Study

This research is focused only on the counselors of B. Tech. in Electronics and Mechanical Engineering Programmes of YCMOU.

Training is imparted only through multimedia module developed by the researcher.

However, this study is beneficial to almost all Open and Distance Learning Institutes and Universities in India. The inferences of this research may greatly enhance and bring better quality counseling with better methods to enhance learning.

References

Journal/ Conference Articles

- Libby Fared (2005), "Breaking down the confines: an e-learning resources for all, at home and at school", *Journal of International Council for Educational Media*, 42(2), 135-143.
- Tripathi & Mukerji, "Access and Equity to Education in India through Synergy of Conventional and ODL Systems: A Step towards Democratization of Education", *Open Praxix*, 2008, 1(2), 1-2
- UNESCO Report (2003), "Open and Distance Learning: Trends, Policy and Strategy Considerations"
- Yaqub Ali Khan (2001, Feb), "Study of Learners' Reactions on Interactive Radio Counseling", XV Annual Conference of an Asian Association of Open Universities, New Delhi.
- Killedar, M.(2000), "Web Based Engineering Education in India", An International Distance Education and Open Learning Conference, Adelaide.
- Sir John Daniel (1999), "Distance Learning in the Era of Networks", The ACU bulletin of current documentation No. 138 / April 1999.
- Greg Shaw (1998), "Quality Education On-line", Conference proceedings of Asian Association of Open Universities on Distance and Open Learning.
- Saljo R. (1979), "Learning in the Learner's Perspective: Some common-sense Conceptions", Reports from the Institute of Education, University of Gothenburg, 76.
- John Carey (2003 July), "Massachusetts Needs a Standards-Based Model for School Counseling", Center for School Counseling Outcome Research University of Massachusetts, Amherst

Books

- Hagen (2002), "The Future of Learning from eLearning to mLearning", Fern University
- Rastogi, S. (2002), "Multimedia for Counseling the Counselors", YCMOU, at Nashik
- Alessi, S. M. & Trollip S.R. (2001), "Multimedia for learning: Methods and Developments", (3rd ed.), Boston, MA: Allyn & Bacon
- Best, J. & Khan, J. (1998), "Research in Education", (7th ed.), India: Prentice-Hall
- Salunke, K. (2000), "Research Needs in YCMOU", YCMOU, at Nashik
- Peter Fenrich (1997), "Instructional Multimedia Applications", Harcourt Brace & Company, USA.
- Morgan, A. (1993), "Improving Your Students' Learning, London: Kogan Page".
- Schuemmer, R. (1993), "Some Psychological Aspects of Distance Education", Hagen, Germany: Institute for Research into Distance Education. (ed. 357 266).
- Morgan, A. (1991), "Research into student learning in distance education", Victoria, Australia: University of South Australia, Underdale. (ed. 342 371).
- Koul, B.N. and Ramanujam, P.R. (1989), "IGNOU Handbook 1 Distance Education", IGNOU, at Delhi

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Editor's Note: This paper synthesizes a diverse body of research and praxis. It challenges instructors to find best practices for their subject matter, teaching style, and student needs. Seemingly trivial findings such as "distance learners tend to be attracted to distance education methods" become part of design concepts and causal relationships. Compare these ideas with your own teaching and pedagogy, particularly statements like "most online students are independent style learners, in contrast to classroom learners who are more dependant or collaborative."

You Can't Teach That Online a Proposal for Consistency

Eric J. Schmieder

USA

Abstract

You can't teach that online! There are many published papers in the field of distance learning that accent the differences between online instruction and traditional face-to-face instruction methods. While illustrating the differences, it is often stated that online courses are suitable for certain types of courses, but not for all types of courses. This paper is the culmination of an extensive literature review process and intends to accomplish the following goals: to suggest the hypothesis that *any course* that can be taught in a traditional face-to-face classroom can be effectively taught online; to review some of the key trends in distance education as found in the published literature; to review student and teacher benefits and challenges related to online learning; to review some of the documented arguments about which classes are *not suitable* for online instruction; to suggest a method for online instruction that enables instructors to teach any traditional class effectively in an online environment; and finally to discuss future opportunities for research in this field.

Keywords: Online learning, distance education, teaching methods, pedagogy, course development, virtual classrooms, web-based instruction, teaching online, online courses, student retention, online education, course management, teaching styles.

Introduction

Online education is being integrated in to the curriculum structure of many educational institutions (Abromitis, 2002) and with that integration threatening the traditional class structure and laden with numerous arguments of poor quality and insufficient standards for online courses, we find many traditional students and faculty claiming, "You can't teach *that* online". Despite this claim, online courses are developed and released nearly daily at institutions around the world (Natale II, 2002).

The problem with many of the courses developed, especially those that are produced in mass quantity is that they lack the focus of traditional course development, because the online course development process frequently ignores the question "What do we want our students to be able to do at the end of our course?" (Wong, Greenhalgh, Russell, Boynton, & Toon, 2003). Without this focus and target outcome definition as part of the process, traditional instructors and institutions are forced to "question the suitability of certain courses being online" (Hirschheim, 2005). Some research claims that a subset of traditional courses are not appropriate for online delivery, with specific concerns about instructor's teaching methods and student's learning styles affecting this claim (Wong, Greenhalgh, Russell, Boynton, & Toon, 2003). This paper aims to present the assumption that teaching methods and student learning styles are not dictated by the delivery method, but rather that teaching is a process that supersedes the method of delivery.

Hentea, Shea, and Pennington provided an effective definition of the broader concept of teaching as "a process that aims to increase or improve knowledge, skills, attitudes, and/or behaviors in a

person to accomplish a variety of goals and generally focuses on the personal growth of the learner” (Hentea, Shea, & Pennington, 2003). Assuming this definition as accurate in describing the teaching process, is there really any difference between teaching online versus teaching in a face-to-face classroom as suggested in several discussions of the topic (Bailey & Luetkehans, 1998)? The author believes that the only difference is in the methods used to convey those “knowledge, skills, attitudes, and/or behaviors” contributing to the growth of the learner.

Assuming these opinions and definitions to be true and that the learning process invoked through teaching methods, whether online or in traditional face-to-face environments, is the same conveyance of knowledge, why do some schools or universities maintain different standards for the two delivery methods (Hentea, Shea, & Pennington, 2003)? As noted by Kamberg’s research, there are many similarities between the two methods, “students in online programs have books, professors, classmates, tests and finals”, and one minor difference, “the whole class doesn’t have to be online at the same time” (Kamberg, 2007). Online courses may even have the *same* books, the *same* professors, the *same* classmates, and the *same* tests and finals as their traditional counterpart, so should the two sections be treated differently?

Students in online courses often receive instruction in different ways, but they still expect a level of interaction and engagement in the material, both with the instructor and fellow students. For some, due to their personal experiences of highly interactive video games and other multimedia experiences, there may be an increased expectation for interaction and engagement in the online classroom. The traditional online course design, one laden with large amounts of text, resembling an independent correspondence course, does little to meet this expectation or student need (Crawford, 2006). Incorporating tools that encourage interaction among students in online classes, thereby fostering learning communities, gives students “simultaneous access to the work of others to provide comparative models and opportunities to appropriate ideas more advanced than they might think of on their own” (Saldivar, 2005). Students in online classes expect to receive the same core knowledge as their traditional counterparts, but for various reasons find the online method more convenient or appealing. However, very few base this choice on a desire to avoid the classroom (Aman & Shirvani, 2006). As a result, online instructors must still teach in ways that are familiar and accepted.

Purpose of Study

Studies indicate that “online students are missing something that the classroom students are not” (Ury, 2004) and most of what is missing in the online classes, as identified by research, is educational quality (Hirschheim, 2005). This loss is due primarily to a lack of focus on the goals for student learning outcomes during the course development process (Wong, Greenhalgh, Russell, Boynton, & Toon, 2003). Online students are often left defining their own outcomes and goals for a course and pursuing them based on the information provided in electronic form. According to one study, “distance education is just a high-tech and more responsive form of correspondence study, relying predominantly on test” (Natale II, 2002).

It is true that online education opens opportunities to integrate technology into the course design in different ways, and many online students expect or even demand these technical aspects, however, “a high tech façade is not a substitute for the rigorous application of established pedagogical principles (such as setting clear objectives, promoting active learning and so on) to the online environment” (Wong, Greenhalgh, Russell, Boynton, & Toon, 2003). Online courses must be structured in similar fashion to their traditional counterparts with organized class schedules, assignments designed with ample time and resources for completion, and tasks that are not too easy or too hard to ensure a successful learning experience (Hentea, Shea, & Pennington, 2003). Clear expectations are critical to student success and retention as suggested by Crawford’s research noting, “The reason most often reported by high school counselors to virtual high school

teachers for students dropping a course and becoming non-completers has been that the course was not what students had expected” (Crawford, 2006).

Another claim of opponents to distance learning is that online courses lack “the human dimension of group interaction” (Natale II, 2002). Group interaction through online learning communities provides opportunities for students to collaborate, share ideas, compare their results to those of others and as a result produce stronger outcomes (Saldivar, 2005), but interaction with other students is only part of the equation. Students need and prefer direct interaction with the teacher regarding the course material to foster learning (Saldivar, 2005). Interaction with the teacher or fellow students can be accomplished in a variety of ways in an online classroom, including email, bulletin boards, chat rooms, phone calls, and video conferencing. When these methods are implemented in the online classroom higher completion rates are attained as compared to a documented 25 percent completion rate in strictly self-paced courses (Osberg, 2002). Such interaction among students and with instructors of online courses reduces the distance in this form of distance education by fostering a community of online learners within the course environment this reduces the barriers of time and space (Hentea, Shea, & Pennington, 2003).

The purpose of this study is to understand the current trends, benefits, and challenges of online learning environments as documented in research literature in order to reduce the risk of dissatisfaction with online learning. Methods will be proposed for teaching traditional courses online in a way that does not lack quality or purpose (Natale II, 2002). To accomplish this purpose, the author has taken the approach of a comprehensive literature review to “explore the reasons for the differences in the results and determine what the body of research, taken as a whole, reveals and does not reveal about the topic” (Angelino, Williams, & Natvig, 2007).

Background and Literature Review

Key Trends in Distance Education

The growth of distance education and online learning in the last decade is staggering as illustrated by the research. For distance education as a whole the growth was identified and projected in the late 1990’s with “an estimated 1,363,670 students enrolled in college-level, credit-granting distance education courses in 1997-98” and “an estimated 2,876,000” by 2000-2001 (Angelino, Williams, & Natvig, 2007). In 2002 the number of students enrolled in at least one online course was an estimated 1.6 million with an estimated 578,000 taking all of their courses online (Funk, 2005). By 2005 this number had been increased to 1.2 million (Kamberg, 2007), and increased again to an estimated 3 million just a year later (Picciano, 2006). This represents “close to 20 percent of the total higher education student population” (Picciano, 2006).

In a study conducted in 2004, “50% of the online students would have preferred a traditional format” (Ury, 2004). One of the key reasons for this trend towards traditional classroom format is the level of interaction between students and the instructor. “There seems to be an overwhelming tendency among students to prefer a direct active interaction between the student and the teacher and the material being discussed” (Saldivar, 2005). It is important that students feel their instructor is active in the class and accessible through email, by telephone, or with virtual office hours that simulate the contact students would expect from a traditional face-to-face environment (Osberg, 2002).

As broadband Internet service becomes more readily accessible, even in rural areas, online education can better emulate the traditional learning experience with “rich media, including online video, live chat sessions with peers and professors, and live audio to create a quality learning experience for their students” (Kamberg, 2007). Surprisingly, likely caused by the tendency of online courses to avoid implementation of these technologies, students who began using digital devices earlier in life and played video games frequently were less likely to

complete an online course (Crawford, 2006). To cater to such a market, it is important that online courses are developed in a way to engage these learners.

There is no specific profile of an online student, nor their desires for how the technology functions that can simply be applied to all online courses, but the same can be said for traditional students; however some preferences and trends do exist. “In a report of a study about online education in *Education Daily* by Alana Keynes (2002), adult students who have children and who attend two-year colleges are more likely to take distance education classes” (Funk, 2005). These students appreciate and value the flexibility of schedule provided by online courses. Men and women also expect different things from technology in general. According to research, “women ask technology for flexibility but...men ask it for speed” (Aman & Shirvani, 2006). Regardless of the expectations of the students, the assumption exists throughout literature that “most online students are independent style learners, in contrast to classroom learners, who are more dependent and collaborative” (Funk, 2005), thereby shifting the role of the educator from deliverer to guide giving students greater independence and ownership of their own learning process (Hardin, 2004).

Even though independent learners tend to be attracted to distance education methods, they do not reject guidance from instructors in the learning process (Holmberg, 1989). Knowledge, cannot be created in isolation, but rather is created through communication with others and the sharing of ideas. Knowledge can be transmitted from one person to another, but individual knowing is the result of the interpretation of that knowledge communicated (Dennen & Paulus, 2005). In many cases, traditional instructors find the need to communicate lessons differently than they are presented in a text book or other source, or to encourage peer communication to foster this understanding. This same principal should exist in online environments as well. Studies show that “students using computer-mediated, collaborative, Web-based learning perform significantly better than the students using only Web-based learning methods” (Hentea, Shea, & Pennington, 2003). In general, there is “no significant difference in achievement and satisfaction between students in distance education classes and traditional modes of delivery” (Hirschheim, 2005).

Another key trend evident in the literature review is the claim that attrition rates in distance education are higher than that of traditional classroom environments, even as great as 10-20% (Angelino, Williams, & Natvig, 2007). According to Hislop and Ellis, traditional students took a higher average number of courses before quitting than distance students and overall retention for the on-campus students was moderately higher than that of the distance students (Hislop & Ellis, 2006). According to Osberg, the structure of the course can impact attrition rates finding that “only 25 percent of employees finish e-learning courses when they’re strictly self-paced; the completion rate is higher when learners are expected to communicate via email, bulletin boards, chat rooms, or phone calls” (Osberg, 2002). Another study claims that “84% of students complete the online courses in which they are enrolled” (Dianis, 2004). Hislop and Ellis noted additional findings indicating “a trend toward a higher graduation rate for the distance students combined with a higher retention rate for the on-campus students. These contrasting trends were created by a significantly earlier departure from the program by distance students who quit” (Hislop & Ellis, 2006).

Benefits of Online Learning Environments

Online courses offer a wide array of benefits to students and teachers including “flexibility with no loss of performance” (Ury, 2004). Offering “freedom from space and time constraints, increased interactivity, improved delivery of multimedia, broadened curricula, and personalized learning” (Hentea, Shea, & Pennington, 2003), online courses allow students to learn material in innovative ways, at their convenience day or night during the course term.

In addition to flexibility of schedule, students have multiple avenues for enhancing communication with faculty and peers. “Students agreed that seven of the nine functions provided by the web-based online course management system enhanced their learning: private email (92.3%), calendaring (88.5%), course notes (88.5%), discussion forums (84.5%), online grades (84.5%), assignment descriptions (80.8%), and online quizzes (80.8%)” (Green, van Gyn, Moehr, Lau, & Coward, 2004). Additionally, in a recent study, tutor-supported online discussions were “consistently identified by students as contributing significantly to their active learning” (Wong, Greenhalgh, Russell, Boynton, & Toon, 2003). The key to active learning in the online environment is student interaction, both with the teacher and other students (Wong, Greenhalgh, Russell, Boynton, & Toon, 2003). Research shows that student performance is also positively impacted by the incorporation of computer-mediated, collaborative tools in the online classroom over online class environments that do not employ such tools (Hentea, Shea, & Pennington, 2003).

While the students can benefit from a more collaborative environment, the instructor cannot simply let the course run by itself as “students expect the instructor to be a presence within online courses” (Saldivar, 2005). In online classes, however, there is a significant decrease in instructor-driven communication with indication “that instructors talk 90 percent or more of the time in the classroom, whereas online instructors post fewer than 10 percent of the comments” (Hardin, 2004). The online format encourages participation and communication between students and teachers because there are no time constraints limiting questions to a select few students as in a traditional, face-to-face environment (Hardin, 2004). As Kamberg stated, “In an online classroom, no one can sit in the back of the room and hide” (Kamberg, 2007).

Instructors also have greater benefits in efficient use of time for future offerings of online courses than with traditional face-to-face offerings. Although the initial development of an online course can demand more instructor time, especially those who are building familiarity with the course development tools, subsequent offerings of the same course require as little, and sometimes less time than traditional courses due to the reuse of much of the developed content (Gill, 2005). As instructors re-offer their online courses, less time is spent in development and more time can be committed to communication with the students and class management processes.

Challenges of Online Learning Environments

The biggest challenge in delivering online courses is to ensure that students don’t feel as though they “‘missed out’ educationally because they took an Internet class” as was reported by 74% of the students in the Hirschheim study (Hirschheim, 2005). Unfortunately, not all online courses are able to effectively deliver the benefits listed in the previous section. Instead courses are often under-developed or under-delivered due to issues like “lack of staff training and support, inadequate course design, lack of software, improper use of emerging technologies, inappropriate student selection, and flawed assessment methods” (Hentea, Shea, & Pennington, 2003).

Another challenge in developing successful online learning environments is in the establishment of human interaction factors inherent to traditional face-to-face courses. Being physically separated from the other class members, distance learners may feel isolated, unsupported, and disconnected (Angelino, Williams, & Natvig, 2007). “The loss of a personal touch points to a major difficulty with online courses” (Aman & Shirvani, 2006). Without this “personal touch” online students may feel as though they are “missing out” on part of the classroom experience (Ury, 2004).

Ineffectively designed courses often rely heavily on text-based correspondence and independent study resulting in “just a high-tech and more responsive form of correspondence study” (Natale II, 2002). In this case students are often unsure of the expectations set for them and develop anxiety resulting in negative views of online courses and a preference for traditional lecture-style

classes (Green, van Gyn, Moehr, Lau, & Coward, 2004). This dissatisfaction with the delivery method and unclear expectations leads to a greater number of non-completers and student drops (Crawford, 2006). In order to gain clarity, students resort to higher levels of interaction with the professor via email or other forms of communication making it sometimes overwhelming to the professor (Hirschheim, 2005).

In addition to the feelings of confusion and isolation, students often criticize assignments, textbooks, hardware and software, and other elements of the online course (Hentea, Shea, & Pennington, 2003). These criticisms may be more symptoms of the larger issues of isolation and confusion. These feelings are directly related to a lack of communication among students in a typical online course as “even those who have the means of communicating with others in their class via online chats or email may not receive any encouragement to do so” (Hentea, Shea, & Pennington, 2003).

Online courses are often criticized for being lesser quality than traditional courses, despite their provision of convenience and flexibility (Grandon, Alshare, & Kwun, 2005). This is directly related to the trend of colleges to choose “volume-oriented solutions that please the most individual customers, rather than quality-oriented solutions that will inevitably displease some individual customers” (Natale II, 2002). Online courses are often developed and re-run to capitalize fully on the potential benefit of time savings in subsequent offerings, but for quality purposes, courses need to be updated and renewed and faculty must be motivated to do so (Schell, 2004).

“Online courses can tend to make students more dependent on the computer for problem solving” (Hardin, 2004). Without the in-class discussions, professor and classmate views and perspectives, and other facets of traditional face-to-face instruction methods, students are reliant more on the computer to fill in the blanks (Hirschheim, 2005). As a result online courses begin to lend themselves more to a mass-marketed, pre-packaged product that minimizes the subject matter and encourages students to expect top grades with minimal effort and ability (Hirschheim, 2005). The lack of flexibility of most course management systems requires the use of supplemental technologies not necessarily available to all students (Hentea, Shea, & Pennington, 2003) and some critics of online learning note the lack of access to students without computers and the Internet as an additional barrier (Funk, 2005).

Other technologies, such as streaming media may be limited by Internet connections and available bandwidth (Hentea, Shea, & Pennington, 2003) and although “literature would suggest that a preference for graphics presentation of material in all students might be found, . . . the data [in Crawford’s study] did not support this conclusion” (Crawford, 2006). Videoconferencing also requires greater amounts of bandwidth than typical Internet services provide (Hentea, Shea, & Pennington, 2003).

“Perhaps the most controversial pedagogic issue associated with online learning environments is the nature of the class interaction” (Picciano, 2006). Knowing the limitations of the students regarding technology available for their independent efforts is important when structuring an online course.

Social interaction among students is an important aspect of learning that is not always present nor promoted in the online learning environment (Grandon, Alshare, & Kwun, 2005). Without such interaction the spontaneity element of the lecture situation is lost (Hirschheim, 2005). Lecture situations lead students to think of questions, and the immediate availability of an instructor response encourages students to ask more questions in class (Hirschheim, 2005). Further, “the flow of questions in a class allows a professor to adapt content and pace to the rate at which the students understand the material” (Hirschheim, 2005). This dialog nature of face-to-face classes is important to ensure that valuable feedback is provided to indicate whether learners have properly

understood the material presented (Osberg, 2002). Although online students do not have the immediate availability of the instructor for face-to-face communication, the expectation of availability when questions arise is still present in online learners and through email “students now expect a professor to be available 24 hours a day” (Hirschheim, 2005).

Technology-based innovation, such as online learning, is often perceived as lower quality by traditional academic environments (Wong, Greenhalgh, Russell, Boynton, & Toon, 2003). With a focus on retention of students, quality becomes a greater issue in the field of distance learning assuming that such “quality (or lack of quality) of the product that has an impact on students’ willingness to ‘stay the course’” (Natale II, 2002). Education institutions should be cautious in their decisions regarding this delivery method to be sure that the immediate economic benefits do not cost them future market share and student retention by sacrificing quality in their online programs (Aman & Shirvani, 2006).

You Can’t Teach *That* Online

“Academics question the suitability of certain courses being online” (Hirschheim, 2005). The importance of human contact in the education process, limitations for those who don’t have access to the Internet or computers, and the overall value of the education system are three reasons some educators discredit online learning (Funk, 2005). In Hirschheim’s study, “the elements of traditional university instruction affected in some way by online delivery, as identified by study participants, were: loss of lectures; loss of information delivered in visual and verbal formats; loss of a professor’s views and perspectives; loss of classroom discussion; different type of access and relationship to the professor; loss of questions on course content; easier access to administrative information; increased level of group problems; an expectation that course work should be individual in nature, not group based; expectation that all reading materials be online; higher level of self-sufficient learning; and changes in student motivation” (Hirschheim, 2005). Students often find such missing features compensated by increased reading, exercises, and assignments in the online classroom while accommodating for lack of interaction, technology problems, and connection issues. With such challenges in the environment, “it is much easier to fall behind in the online courses and a student must be self-motivated with a strong sense of personal responsibility and possess tremendous commitment to succeed in the online environment.” (Ury, 2004). Teachers are also faced with challenges in teaching certain classes online, such as hands-on chemistry or biology laboratory activities, as these activities are presented through simulation and not in person in an online learning environment (Picciano, 2006).

When students who would not take another class online were asked to identify why, the most common response was “I prefer in-class instruction” (Aman & Shirvani, 2006). The reason in-class instruction is preferred is for the group interaction perceived to be only available in that format and unavailable in a distance learning environment (Natale II, 2002). “Adult learners need feedback to know whether they’ve properly understood the material and mastered the skills” (Osberg, 2002). Feedback in a traditional classroom comes in many forms including social interaction that may not be directly related to the course content but lends to group process learning (Natale II, 2002). Wong, et. al. claim that to effectively teach online, adaptations must be made to maintain the learning process and not all staff are capable of making these adjustments to their tutoring skills (Wong, Greenhalgh, Russell, Boynton, & Toon, 2003). In reality the only thing that requires change is the method of delivery, not the tutoring skills of the staff. Online courses are still the same course, “the difference is that the whole class doesn’t have to be online at the same time” (Kamberg, 2007).

It is further assumed that online students are somehow different from classroom learners in that “most online students are independent style learners, in contrast to classroom learners, who are

more dependent and collaborative” (Funk, 2005). Differences are also cited that the nature of a traditional lecture environment encourages greater participation by students in the form of asking questions (Hirschheim, 2005). In contrast, “survey results reported by several researchers indicate that online courses offer flexibility with no loss of performance” (Ury, 2004) and a number of studies show the two forms of delivery to be comparable (Picciano, 2006).

Traditional learning positions students objectively in the learning process with the assessment based on how much of the material they are able to learn and demonstrate (Dennen & Paulus, 2005). If online learning communities are to foster knowledge creation through collaboration among online students and faculty, “there must be a significant change in how courses are presented and course materials selected. What works in the traditional class is not always as effective online as evidenced by several findings” (Hirschheim, 2005). In order to create an effective online learning community, communication opportunities must be readily available and information sharing should be encouraged (Osberg, 2002).

Proposed Method for Online Instruction

In order to increase retention of students and lower attrition in online classes, the students must be engaged in the learning process. “Course dropout rates decrease when people who are learning the same subject engage” (Osberg, 2002). According to research, the two aspects of online courses to promote this active learning process are” 1) participating in structured, tutor-supported online discussions and 2) writing conventional essay-style assignments” (Wong, Greenhalgh, Russell, Boynton, & Toon, 2003). Students must be encouraged to use the communication tools available to them in the online classroom, whether by discussion board, online chat or email, students need to communicate with each other to promote a sense of community and reduce the feelings of isolation and confusion that come from being disconnected in an online class (Hentea, Shea, & Pennington, 2003). Simply put, “Require that students interact with the materials, their classmates and you” (Hardin, 2004). By doing so, learning will occur more freely and through interaction will be more effective (Hentea, Shea, & Pennington, 2003).

As the instructor, step back. By giving students the opportunity to respond to each other, rather than providing all of the answers immediately as the instructor, knowledge is constructed through the learning process, rather than simply being delivered (Hardin, 2004). “The learner-centered approach ‘demands more active forms of classroom instruction that engage the student in the process of learning and that rely on student input for shaping instructional objectives’” (Angelino, Williams, & Natvig, 2007). By providing opportunities for student-to-student interaction and communication, social interaction and group processes, valuable in face-to-face teaching, can be established in the online environment (Natale II, 2002). Establish opportunities for students to communicate in real-time through synchronous activities, such as chat sessions, that are topic focused and part of the overall learning experience (Saldivar, 2005). By integrating communication tools (i.e. chat sessions, threaded discussions, and virtual classrooms) into the learning community, learner interaction and feedback systems are fostered and e-learners are encouraged to stay online and active in the class (Osberg, 2002).

Step back doesn’t mean step out. As the instructor it is your job to be available for students and students expect you to maintain a presence in the online classroom (Saldivar, 2005). You can be part of the discussion without dominating the discussion. Students will not develop communication channels among themselves if the instructor always provides the answer, but valuable “discussions with instructors and other learners increase the likelihood that an online course will be completed—and knowledge will be retained” (Osberg, 2002). To encourage understanding beyond basic comprehension, “ask questions that require application, analysis, synthesis and evaluation” and “help students construct knowledge, not simply transmit information” (Hardin, 2004). Your input as an instructor to the discussion can help to clarify, redirect, encourage, and maintain productive lines of student-based communication channels.

Use the tools effectively and remember the purpose for their use. “Distance educators must incorporate ways to establish and maintain community among distance learners into the design of their courses; technology should be a tool to facilitate interaction, reduce the barriers of time and space, and therefore foster community” (Hentea, Shea, & Pennington, 2003). Feedback from students in online classrooms is different from that in a traditional environment and, with the exception of videoconferencing methods, facial expressions and other body language, feedback is unavailable online, however, valid and timely feedback is necessary to ensure that students are learning (Hentea, Shea, & Pennington, 2003). Saldivar went into great detail in his 2005 article, “Chat Transcripts: Once the Chat is Over, is it Really Over?” about how chat session logs can be used to reinforce the learning that takes place in a chat session by guiding, teaching, elaborating, and making students realize that what they say can be important (Saldivar, 2005). Regardless of the tools used in your online classroom, be sure that the technical aspects do not “substitute for the rigorous application of established pedagogical principles (such as setting clear objectives, promoting active learning and so on) to the online environment” (Wong, Greenhalgh, Russell, Boynton, & Toon, 2003).

Learning online should not be any different than learning in a classroom. “The concept of a learning community in a virtual environment may be seen to be aligned with the way people learn and interact in the physical world” (Sheard, 2004) and therefore must cater to different types of learners by employing a variety of teaching styles (Aman & Shirvani, 2006). The right way to teach your traditional course is probably still the right way to teach your online course. If you have fully developed an effective, high-quality curriculum for your traditional course, find ways to integrate that same curriculum into the online instruction model (Ury, 2004). Due to the asynchronous nature of online learning, it is important that instructors “organize the delivery of content as well as anticipate things that might go wrong and plan ahead accordingly” (Picciano, 2006) to reduce frustrations and problems that would be otherwise handled in a face-to-face classroom. Traditional lesson plans are based on targeted skills and clearly stated objectives, online courses should be as well (Bailey & Luetkehans, 1998). Online instruction (as with traditional instruction) requires time, effort and planning, all of which are common criticisms from instructors in moving their classes online, but “we should focus our efforts on meeting the needs of the learner; not on what is easy to deliver” (Angelino, Williams, & Natvig, 2007).

Just because the learning stays the same, doesn’t mean the delivery can. “Technical components must be combined with instructional knowledge in order to produce DLEs [(distance learning environments)] that achieve the twin standards of success: learning improvement for student users, and cost effectiveness, in terms of time and effort for instructors and funds expended for administrators” (Champeny, et al., 2004). If there is a better way to deliver the content, change the delivery method. Many students choose online learning for the conveniences and technology-based enhancements that this method brings to the education process. “Courses that are ‘data dumps’ of old lecture notes scanned or word-processed into Web pages will suffer from lack of student interest and poor student reviews” (Abromitis, 2002). Lecture can still be delivered, but in ways that build a participative environment for students and teaching staff (Sheard, 2004) that uses the technology available to maintain the interests that students have in the traditional lecture format. Lectures can be delivered through chat sessions, recorded videos, or live videoconference sessions, but regardless, they should engage the students in the learning process, not the technology, (Hardin, 2004) while meeting the students’ expectations of high quality online learning experiences (Grandon, Alshare, & Kwun, 2005).

Manage your classroom and maintain quality in teaching. “The role of the educator...has traditionally been the owner and deliverer of the knowledge, now his role is shifting to a guide and facilitator...to give the students ownership in their own learning process” (Hardin, 2004). Online learning environments provide less opportunity for direct synchronous delivery of

knowledge to students than traditional face-to-face classrooms, but as mentioned earlier, students are provided the opportunity for knowledge creation through an online learning community and interaction with peers and teachers in other ways. The convenience of the online learning environment, one of the noted benefits of the method, should not offset the quality of teaching conducted in the online classroom (Grandon, Alshare, & Kwun, 2005). Deadlines, due dates, and quality assignments that encourage students to do more than simply re-state facts all aid in the development of quality forms of online instruction (Hardin, 2004).

Be active in the learning process. Engage your students by participating in the conversation. “There is ample evidence that online learning has a better chance for success if teachers interact in synchronous communication activities” (Saldivar, 2005). With active participation, students are able to share their thoughts and work while gaining “simultaneous access to the work of others to provide comparative models and opportunities to appropriate ideas more advanced than they might think of on their own” (Saldivar, 2005). This level of interaction will be better received than traditional presentation of material by students who are accustomed to a high level of engagement and interactivity in video games and other technologies (Crawford, 2006). Explore the benefits of incorporating online video or live chat sessions into your online courses to further engage the students, especially now that broadband Internet services are more prevalent and accessible for students (Kamberg, 2007). Live lecture formats through these technologies can capitalize on the instructor’s personality and natural ability to capture student’s interest (Hentea, Shea, & Pennington, 2003).

Forget the distance. Take the “distance” out of distance education and online learning. As a faculty member office hours are likely available to your traditional students, be sure that they are *virtually* available to your online students as well. “The second most-mentioned request [of polled people who had recently completed online courses] was active correspondence with an online facilitator who has frequent virtual office hours” (Osberg, 2002). Expect your students to perform in the same way you would the traditional face-to-face students and remember that the only real difference is the timing of when they “come to class” (Kamberg, 2007). Keep up with your content and the tools available to deliver your courses more effectively in this online environment (Schell, 2004), focus on quality of instruction as you would in a traditional face-to-face environment, and remember that online students are still students and the course content is still the course content, regardless of delivery method.

Discussion

By this point hopefully it is clear that the 1998 suggestion that “Teaching and learning in on-line environments is very different from face-to-face instruction” (Bailey & Luetkehans, 1998) no longer holds true. Advancements in technology over the last decade have produced tremendous opportunity for teaching to simply be teaching, regardless of the method used to foster the development of knowledge. As noted earlier, “Students in online programs have books, professors, classmates, tests and finals. ‘The difference is that the whole class doesn’t have to be online at the same time’” (Kamberg, 2007).

Be careful not to simply post your lecture notes or traditional coursework on the Internet as modern day students demand greater levels of interaction and engagement as they have become accustomed to in other forms of technology (Angelino, Williams, & Natvig, 2007). Remember the benefits of online learning from the student perspective such as convenience and comfort (Picciano, 2006) when designing your courses. Establish learning communities that foster interaction among students and with you as the instructor (Saldivar, 2005), but begin to shift roles from educator to facilitator in an effort to pass ownership of the learning process to your students (Hardin, 2004).

Continue to focus on the needs of the learner, not necessarily what is easiest to deliver as the instructor (Angelino, Williams, & Natvig, 2007), and work to design a course with structure, schedule, deadlines, and assignments which are neither too easy nor too hard (Hentea, Shea, & Pennington, 2003). Maintain quality in your instruction regardless of delivery method (Hirschheim, 2005) and maintain the same standards for distance education as for traditional classes (Hentea, Shea, & Pennington, 2003). Decrease the focus on the technology (Hardin, 2004) and provide greater focus on fostering a collaborative learning environment and by doing so you should be able to teach any course online.

Future Opportunities for Research

Many opportunities for study exist in the field of instructional design relative to online course delivery methods. Case studies of specific courses assumed to be unsuitable for online delivery adapted for effective online teaching is one opportunity. Another suggestion for research is to consider the impact successful adoption of online learning methods have on the traditional classroom and the methods used in those environments to foster better learning.

References

- Abromitis, J. (2002). *Trends in Instructional Technology and Distance Education*.
- Aman, J. R., & Shirvani, S. (2006). Dick and Jane Online: Considering Online Coursework. *Journal of Computing Sciences in Colleges* , 131-138.
- Angelino, L. M., Williams, F. K., & Natvig, D. (2007). Strategies to Engage Online Students and Reduce Attrition Rates. *The Journal of Educators Online* , 1-14.
- Bailey, M. L., & Luetkehans, L. (1998). Ten Great Tips for Facilitating Virtual Learning Teams. *Distance Learning '98. Proceedings of the Annual Conference on Distance Teaching & Learning*, (pp. 19-25). Madison, WI.
- Champeny, L., Borgman, C. L., Leazer, G. H., Gilliland-Swetland, A. J., Millwood, K. A., D'Avolio, L., et al. (2004). Developing a digital learning environment: an evaluation of design and implementation processes. *Proceedings of the 4th ACM/IEEE-CS Joint Conference on Digital Libraries* (pp. 37-46). Tuscon AZ, USA: ACM.
- Crawford, D. L. (2006). *Characteristics Leading to Student Success: A Study of Online Learning Environments*. Texas A&M University - Commerce, United States -- Texas: Ed.D. dissertation.
- Dennen, V. P., & Paulus, T. M. (2005). Researching "Collaborative Knowledge Building" in Formal Distance Learning Environments . *Proceedings of th 2005 conference on Computer support for collaborative learning: learning 2005: the next 10 years!* (pp. 96-104). Taipei, Taiwan: International Society of the Learning Sciences.
- Dianis, L. (2004, September). By the Numbers on Distance Education. *District Administration* , p. 90.
- Funk, J. T. (2005, August). Best practices: At-Risk Online Learners: Reducing Barriers to Success. *eLearn* , p. 3.
- Gill, T. G. (2005, March). In-depth tutorials: Distance Learning Strategies that Make Sense, Part 1. *eLearn* , p. 1.
- Grandon, E. E., Alshare, K., & Kwun, O. (2005). Factors Influencing Student Intention to Adopt Online Classes: A Cross-Cultural Study. *Journal of Computing Sciences in Colleges* , 46-56.

- Green, C. J., van Gyn, G. H., Moehr, J. R., Lau, F. Y., & Coward, P. M. (2004). Introducing a Technology-Enabled Problem-Based Learning Approach into a Health Informatics Curriculum. *International Journal of Medical Informatics* , 173-179.
- Hardin, K. (2004). Teach them to Fly: Strategies for Encouraging Active Online Learning. *Turkish Online Journal of Distance Education-TOJDE* , 10-14.
- Hentea, M., Shea, M. J., & Pennington, L. (2003). A Perspective on Fulfilling the Expectations of Distance Education. *Proceedings of the 4th conference on Information technology curriculum* (pp. 160-167). Lafayette, Indiana, USA: ACM.
- Hirschheim, R. (2005). The Internet-Based Education Bandwagon: Look Before You Leap. *Communications of the ACM* , 97-101.
- Hislop, G. W., & Ellis, H. J. (2006). Retention of Distance and On-Campus Students in a Graduate Computer Science Degree Program. *Proceedings of the 11th annual SIGCSE conference on Innovation and technology in computer science education* (p. 342). Bologna, Italy: ACM.
- Holmberg, B. (1989). Key Issues in Distance Education: An Academic Viewpoint. *European Journal of Education* , 11-23.
- Howell, S. L., Laws, R. D., & Lindsay, N. K. (2004). Reevaluating Course Completion in Distance Education: Avoiding the Comparison Between Apples and Oranges. *The Quarterly Review of Distance Education* , 243-252.
- Kamberg, M.-L. (2007, Mar/Apr). The Evolution of Continuing Education. *Women in Business* , pp. 22-26.
- Natale II, R. D. (2002, January 21). Ensuring Quality from a Distance. *Community College Week* , pp. 4-5.
- Osberg, C. (2002, October). How to Keep E-Learners Online. *T + D* , pp. 45-46.
- Picciano, A. G. (2006). Online Learning: Implications for Higher Education Pedagogy and Policy. *Journal of Thought* , 75-94.
- Saldivar, J. A. (2005). Chat Transcripts: Once the Chat is Over, is it Really Over? *Distance Learning* , pp. 13-16.
- Schell, G. P. (2004, December). Feature: Evaluating the Development of Online Course Materials. *eLearn*, p. 1.
- Sheard, J. (2004). Electronic Learning Communities: Strategies for Establishment and Management. *Proceedings of the 9th annual SIGCSE conference on Innovation and technology in computer science education* (pp. 37-41). Leeds, United Kingdom: ACM.
- Ury, G. (2004). A Comparison of Undergraduate Student Performance in Online and Traditional Courses. *Journal of Computing Sciences in Colleges* , 99-107.
- Wong, G., Greenhalgh, T., Russell, J., Boynton, P., & Toon, P. (2003). Putting your course on the Web: lessons from a case study and systematic literature review. *Medical Education* , 1020-1023.

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