

# THE EXPERIENCE OF LEARNING IN A WEB-ENHANCED COURSE

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## Abstract

Web based courses are being offered at more and more colleges and universities. In many instances, students do not have a choice whether to enroll in an online course. However, little research has looked at the experiences of these students as they learn in an online environment. This qualitative study used in depth interviews with volunteers from a web-enhanced course to examine the experience of learning online from the students' perspective. Particular attention was paid to the impact of course structure and interaction and dialog among the students and instructor. The study found that lack of experience with the technology, frequency of feedback, language barriers, group size and subject matter all impacted students' learning in this web-enhanced course.

## Introduction

What is the experience of learning in an on-line course from the perspective of a graduate student? While learning is the purpose of distance education, few studies have focused on the learners and the process of learning at a distance (Campbell-Gibson, 1995). Distance education research has focused on instructional design models, feedback, and whether there is institutional support for the programs, rather than targeting the experience of learning from a learner's perspective. Yet educational institutions are setting aside resources specifically for the development of on-line courses (Vrasidas, C. & Mclsaac, M.S., 1999; Sharpe, T. & Hawkins, A. 1998). Clearly, if higher education is promoting the development of on-line courses, and if there is little research on the learners who utilize these educational programs, then we need to study and come to understand how learners view their virtual learning and how this learning might be enhanced through teaching acts adapted for an on-line environment. The purpose of this paper is to examine how a learner experiences an on-line graduate course. The project raises the following questions: (a) how does an adult learner in graduate school use dialog to help construct learning in a web-enhanced course and (b) how does an adult graduate student perceive the experience of learning in a web-enhanced course

## Conceptual Framework

Moore defines learning at a distance as a transaction-taking place with physical space separating the learner from the instructor. It is this physical separation that makes the teaching-learning act different from that which occurs in a face-to-face classroom (Moore & Kearsley, 1996). This notion of education being a transaction is not unique to distance education; Moore contends that whenever there is a learner, a teacher, and a means of communication - face-to-face or over the Internet - there is always a measure of transactional distance. What makes distance education different is that the physical separation, or distance between, the teacher and learner is so significant practices and the roles of both teacher and learner require changes. Distance is both psychological and communicative; psychological distance is the feeling of isolation from both the instructor and other learners, while communicative distance is the misunderstanding between the instructor's intentions and the learner's activities. According to Moore (1993) transactional distance is determined by learner characteristics such as autonomy, the use of dialog, and the structure of the course itself. Distance instructional events should consider how the combination of methods and techniques reduces the space separating the learner and instructor. Each of the aspects contributing to distance will be examined as it relates to learning in an on-line environment.

Learning styles of distance learners have been studied for over 20 years and while there is no consensus or agreement on the definition of a "learning style" (Merriam, S.B. & Caffarella, R.S.,

1999), learning style can be interpreted as the “cognitive, affective, and psychological behaviors that serve as relatively stable indicators of how learners perceive, interact and respond to the learning environment” (Campbell-Coggins, 1988, p.26). Although the characteristics of distance learners have been studied for a number of years, there is still a very limited literature available (Diaz, D. P. & Carnal, R. B., 1999; Thompson, 1998), and most of the literature focuses on the demographic and situation characteristics of these learners. Still, there is some evidence that learning (or cognitive) style does make a difference in whether learners complete programs where learning is at a distance. The research on learning style is inconclusive on the extent to which learning style influences the actual learning that takes place in courses taught at a distance

Later refinements to the theory of transactional distance (Holmburg, B., 1981; Garrison, R. & Shale, D, 1987; and Garrison, R. & Baynton, M. 1987; Keegan, D. 1986) and educators who apply constructivist philosophy in the classroom (Palloff & Pratt, 1999) indicate that dialog may be the critical defining aspect of distance education.

Dialog within a distance course is affected by multiple variables, including the educational philosophy of the teacher and the learners, the size of the learning group, the language of the instructor, and the medium of communication used in the course (Moore & Kearsley, 1996; Palloff & Pratt, 1999). Dialog is necessary to creating a social environment for learning and for clearly communicating the intent of the teaching- learning act (Campbell-Coggins, C., 1988; Palloff & Pratt, 1999). The implication is that learning style, or learning preference and educational philosophy determine the level of dialog required in a course in order for learners to successfully complete a distance course.

The learners in this study were enrolled in a required graduate level course on Adult Education in American Society. This course provides a historical and philosophical view of the role of adult education in a changing American landscape. To reduce travel time for the students, many of whom are part time students and fully employed, the instructor moved the course from a weekly face-to-face format to a format that combines two or three face-to-face classroom meetings with weekly on-line chat and threaded discussion sessions throughout the ten week quarter. For many of the 15 students enrolled for the quarter studied, this course was their first experience with on-line learning.

The on-line sessions were developed and presented using WebCT software. Requirements for the successful completion of the course included weekly small group discussions (held on-line or face-to-face at the students' discretion), weekly on-line chat with the entire class, an annotated bibliography, an oral history, and a written final examination. Each Monday night as part of the regularly scheduled course time learners were required to log in to the instructor's chat room. In this general chat, administrative concerns, questions concerning learning activities and a summation of the week's readings were agenda items. The general discussion was designed to get learners thinking about the issues and ideas presented in the weekly readings and to prepare the learners for their small group discussions. Small group chat rooms were available for each group to be used as a meeting space for discussion on the issue for the week, to formulate a response and to post their response to the course discussion board. However, learners had the option of meeting face to face if they preferred. All the groups chose to work in an on-line format to conduct these discussions rather than meeting face-to-face

Structure is defined by Moore (1993), as the “rigidity or flexibility of the programme's educational objectives, teaching strategies, and evaluation methods. It describes the extent to which an education program can accommodate or be responsive to each learner's individual needs” (pg.26). Moore describes dialog as “the interplay of words, actions, and ideas, and any other interactions between teacher and learner” (Moore & Kearsley, 1996, pg. 201). Thus those teaching and learning within the course as well as the medium in which the course is presented determine levels of dialog in a course. Moore postulates that transactional distance is a combination of the course structure and the dialog that takes place within the course. Therefore, this course would be described as having low structure, high dialog and low transactional

distance. Dialog is encouraged and required to support individual and collective participation with the instructor and other learners. The learners have the opportunity to create the meaning of the course content through their dialogue and interactions with each other and the instructor.

### Methodology

Data to answer these questions were gathered through on-line chat sessions and in-depth interviews with five volunteers from the class. Three of these interviews were conducted individually, with two of the volunteers sharing the final interview. All interviews and chat room discussions were transcribed for analysis. The interviews lasted approximately two hours and were conducted in a semi-structured fashion by the course graduate teaching assistant.

A single case is presented to illustrate the phenomena of learning in a web-enhanced environment

### Findings

“Ginny” is a graduate student taking her first course in adult education and her third on-line experience. “Ginny” is an instructor at the Ohio State University and is working on her doctoral degree in another University program area. This is her first experience with the content as well as the techniques for adult instruction. Her background is from the sciences. She is typical of many graduate students who use this course as an elective. Her experiences with on-line instruction have varied from listservs to complete on-line instruction. Thus her experiences varied from high structure- low dialog to this course that was low structure- high dialog. Ginny’s comments are instructive in that she can compare her experiences as an on-line learner across varying degrees of distance. This course was her first web-enhanced experience. “Ginny” is representative of many of the learners participating in this course. Her experience will be the focus for the project; however, her responses will at times be supplemented with those from some of her classmates.

On-line learning offered “Ginny” the flexibility of working at a time and place convenient to her and allowed her to better balance work and life situations. This seemed to be a primary advantage of the course format. I liked being able to do it from another site. The flexibility that it offers of doing things at your own pace and in our own time. I like not having to be at a class and at a certain time.

While flexibility is certainly a strength of on-line learning for adult students, when small group interactions are introduced as a component of the curriculum, flexibility becomes a potential barrier to task accomplishment particularly in collaborative learning tasks. Rather than having an assigned time to meet as in a face-to-face session, “Ginny” found that the flexibility perhaps encouraged learners to let other priorities emerge since through the technology time and place was not as crucial to meeting. “Ginny” describes the difficulty in arranging for a chat among her assigned small group to accomplish the final examination in terms of scheduling and waiting time.

We all work full time in other jobs. And then when we would find time not everybody would be there on time and we wait. And if we would try it from home... it (the IP connection) would kick you out of the system every thirty minutes, so that it was a hassle. It DOES require a little more of a ...self-motivated person to get on and do it. The way this one was set up, this is the first time I've had a chat experience in any of the classes so we still had designated time that we had to get together as a group and that was problematic. But I never had problems with the WHOLE class meeting together. .... We were gonna do it as a group. So I emailed T. and uh and I, we emailed D and hadn't heard from him and T got back from his conference...we emailed D and emailed D and NOTHING. So, you know, we both said we're gonna have to do this together, if we're going to . ...so it ended up T and I did it together ...instead of waiting any longer for D. So that was kind of frustrating. You know, we were, we had discussed ahead of time. We want to do it together and then, you waste a lot of time waiting for a response. And never got one.

"Ginny" does admit that this situation might also occur in a face-to-face classroom in trying to work in a group and that accomplishing group work is more a function of the people than the structure. The situation does perhaps allow learners to escape classroom norms and avoid having to deal directly with the group. While flexibility of on-line learning provides opportunities for learners to interact at a time and place controlled by the learners, the format also allows learners to restrict their interactions based on emerging life priorities. The issue of coordinating on-line learning with other life commitments especially among group members becomes a crucial issue for the learner.

Dialog was used in this course as the primary means of learning. Through group interactions, the small group and later the large group would come to create their understanding of the historical forces constructing the role and function of adult education in U.S. society. For "Ginny" a high level of dialog was both a barrier and a facilitator of learning. One barrier to learning through dialog on-line was language; this was especially acute in groups in which international students were participating. Even though groups had a week to formulate a response to the issue being discussed, lack of familiarity with language and the technical delay of the chat itself posed a problem to involvement with the group and course content.

We had a language barrier which we thought the WebCT would have helped. But A. was so slow in responding that he would just sit back and not respond at all. The second time we met, he didn't say anything because he couldn't keep up with the pace. One of the people in our group was someone that uses a lot of big words and so that was difficult ....and I don't have TIME to go look it up in the chat to figure out what he was trying to say and it was definitely problematic for the language barrier. Even just slang was a problem. A didn't know what oops meant or.. you know different things were a problem, that probably face-to-face would have uh, probably, I don't know.

With regard to working the chats technically, familiarity with the technology also took time - a growing confidence in using the technology takes place throughout the course.

The first night I sort of had willies in my stomach, you know the funny feeling you get, Gosh, I've never done this before, cause I never chatted, anywhere, how do you do it, is it easy to figure out and it was. I'm not a fast typer so that was an issue. It was my first time in any chat room of any type, so that was a growing kind of experience to begin with, but it was comfortable, it wasn't an uncomfortable thing. I got better at seeing where we were going and typing in, I was trying to type in BIG responses instead of smaller responses and keep adding to them. So I learned myself.. I guess the process of our group, if you wanted to get anything at all it had to be.. small and often. Not big long, I guess because I type so slow. Or slow enough. Slower than the others.

Even with the language problems "Ginny" says that on-line chats can improve "listening skills".

The last week of the quarter when we met and just the two of us ( A), we chatted for over an hour. Not about the class, but... I mean it was very comfortable and easy to read and I understood at least I thought I understood what he was trying to say...I don't think we could have done that face-to-face...cause I would have run out of steam trying to listen.

It appears that characteristics of the learner, especially in terms of language ability and technical proficiency in being able to respond within the limits of the system, can both help (in terms of concentration) and distract from the learning process.

The structure of the course was designed to encourage learner involvement with an issue regarding adult education. Through dialog between and among groups, learning was to emerge. In this structure the instructor would be a voice equal to any other participant. "Ginny" indicates that while this instructional goal was achieved it was not clear at first and that more guidance (more structure) may have helped the learning. The class profile indicated the importance of

learner to learner and learner to instructor interactions as a component of the instructional environment. "Ginny" describes how on-line interactions and face-to-face interactions influenced her learning. The opportunity to meet face-to-face even on an occasional basis helped her to incorporate and better understand the course material and the opportunity to interact face to face with an instructor helps reduce the feeling of distance.

I liked the combination of face-to-face and distance. I liked the weekly...you know combination. The weekly postings that everybody had from their group to see how we sort of went different directions with our responses even though we had, you know the same questions or thoughts. I liked that. Sometimes, I found one of those face-to-face you talked about that Show All (the instructor would summarize the postings and assist the students to make connections) and until I learned that. I had a hard time following that ..how all the conversations and chats went together. So until I finally figured that out, it made no .you know, I was just reading STUFF. It didn't seem to tie together . So ( the face-to-face) was very helpful...I definitely liked that part of the structure. The single biggest thing I liked was the option to interact with other students. I can't imagine how you could ever do that to the extent we did without this type of communication tool. ...We kind of learned from each other and because there were times when - you asked me about my learning - that I thought globally, yeah, because the dialog because the ... we would talk about something that I knew nothing about . And as I talked it started to come to the surface, You know. You could almost see it.

The comment shows that learners need to learn how to learn from each other and come to value the contributions of other learners. The instructor's presence in meaning making is still a desired feature by learners who have not participated in highly dialogic learning experiences. Coming face-to-face can reduce some of the anxiety about what is to be learned and provide an opportunity for learner concerns to be addressed.

"Ginny" relates a incident of how being "in distance" meant also being distant from the learning. I did not enjoy the class that was total distance because when I was lost and I felt I had a question I just felt like I was alone. You felt very distanced from even the faculty who were right here on our campus. You know, it (the course) was through OSU and I still felt lost... One night in distance I felt like I was bothering him (the instructor) I had to go to committee and then it (my question) had to go to the appropriate person and you know then the appropriate person didn't want to be bothered ..it wasn't his problem.

The overall experience seemed to be positive for "Ginny". She does admit that she felt more comfortable in the small chat rooms and that her overall participation behavior did not really vary from her actions in a face-to-face classroom. Size of the chat seemed to be a factor in her decision to fully participate. "Ginny" indicated that all the weekly group work was accomplished in the small group chat room.

I was one of the people that would probably sit out in the when the group got big and lots of people were chatting. But when the group was small then I felt like I could, ,and I found myself doing that. When we met in the general chat, I rarely said much, I was too busy reading (the responses).

The theory of transactional distance does help us to understand how a learner participates and learns in a distance environment. Learner characteristics, course structure, and dialog, when interacting to reduce distance as well as reintegrating the separation of the teaching from the learning act (Keegan, 1986) can make for a learning experience in which students come to realize that they are in fact in control of their learning. It is learner actions that determine whether learning occurs more than the practices of the instructor. Working within the degree of freedom provided by the course structure can determine the quantity and quality of learner to instructor, learner to learner and learner to content interactions. While on-line learning can be a constraining experience due to wait time, high structure and lack of feedback, it can also be a

liberating experience by putting the learner in the position of meaning making as well as determining the space and time for learning.

#### Implications for Practice

The quality and quantity of dialog in an on-line course is influenced by the group size, life situation, cultural background, and participants' degree of comfort sharing in groups. How dialog groups are formed does matter - instructors should not assign groups at random but should provide for a mix that might compensate for technology problems, language, and other learner characteristics related to learning.

Dialog does contribute to learning and encourages collaborative learning. High dialogic situations assist learning when content is of low structure and when interpretation of content rather than memorization of facts and concepts are the desired learning outcomes. Learners, over time, do come to rely on each other as well as the instructor as sources of knowledge. Through the experience, learner autonomy increases as confidence in the ability to make meaning increases.

Instructor presence enhances learning in an on-line course. At the beginning of an on-line learning experience the instructor needs to be available to assure learners that they can work in a dialogic situation and that their thoughts are valued as much as the comments of the instructor. As the group becomes more confident in their ability to learn, the instructor's presence can be reduced, however feedback needs to continue. Thus instructors might consider the degree of distance necessary to accomplish the learning goals.

#### References

- Campbell-Coggins, C. (1988). Preferred learning styles and their impact on completion of external degree programs. *The American Journal of Distance Education*, 2(1), 25-37.
- Diaz, D. P., & Carnal, R. B. (1999). Student's learning styles in two classes: On-line distance learning and equivalent on-campus. *College Teaching*, 47(4), 130-135.
- Garrison, R., & Baynton, M. (1987). Beyond independence in distance education: The concept of control. *American Journal of Distance Education*, 3(1), 3-15.
- Garrison, R., & Shale, D. (1987). Mapping the boundaries of distance education: Problems in defining the field. *American Journal of Distance Education*, 1(3), 7-13.
- Holmberg, B. (1981). *Status and trends of distance education*. London: Kogan Page.
- Keegan, D. (1986). *Foundations of distance education*. London: Croom Helm.
- Merriam, S.B., & Caffarella, R.S., (1999). *Learning in adulthood. A comprehensive guide* (2<sup>nd</sup> ed.). San Francisco: Jossey-Bass.
- Moore, M.G. (1993). Theory of transactional distance. In D. Keegan (Ed.), *Theoretical Principles of Distance Education*. Routledge Studies in Distance Education. London: Routledge.
- Moore, M.G., & Kearsley, G. (1996). *Distance education: A systems view*. Belmont, CA: Wadsworth Publishing.
- Palloff, R. M., & Pratt, K. (1999). *Building learning communities in cyberspace: Effective strategies for the online classroom*. San Francisco: Jossey-Bass.
- Sharpe, T., & Hawkins, A. (1998). Technology and the information age: A cautionary tale for higher education. *Quest*, 50, 19-32.
- Vrasidas, C., & Mclsaac, M.S. (1999). Factors influencing interaction in an on-line course. *The American Journal of Distance Education*, 13(3), 22-36.

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