

Instructional Strategies: What Do Online Students Prefer?

Kristen Cuthrell

Assistant Professor
East Carolina University
College of Education
Curriculum and Instruction
Greenville, NC USA
cuthrellma@ecu.edu

Anna Lyon

Assistant Professor
Wright State University
College of Education and Human Services
Teacher Education
Dayton, OH USA
anna.lyon@wright.edu

Abstract

This study examined student opinions and preferences regarding the impact of six varied instructional strategies in an online graduate curriculum course. The primary research questions were 1) Which online instructional module did students most prefer? 2) Which online instructional module did students least prefer? Students enrolled in two curriculum courses in a Master's of Art in Education program rated the instructional strategies in the online courses and described their most and least preferred technique. All participants were female and included both pre-service and in-service teachers. Data were gathered through student reflections and a survey administered at the conclusion of the class. Student reflections were coded for themes while survey data was analyzed for frequency counts. Results indicated that students preferred independent, passive modes of instruction in online courses because of ease, convenience, and comfort level. Overall reflections indicated student appreciation of a mix of instructional strategies that incorporated more interactive technological modes of instruction with independent, passive modes of instruction. These findings suggest when developing online courses, university professors not assume one instructional strategy fits all. As a result, online courses should provide a balance of instructional approaches.

Keywords: course design, student preferences, course development

Introduction

Online instruction of university courses has grown dramatically and has changed approaches to teaching and learning. The rapid growth of online instruction has caused both concern and excitement among professors. While excited by the possibilities, there has often been scant time to carefully examine course content and to determine how to best present content in this new format. In addition to concerns about presenting content in meaningful ways, an additional issue is relating to students via the internet. Veteran professors who have taken their courses beyond lectures and have used innovative ways to engage students in face to face courses, now feel the need to begin the process again.

Context for the Study

Professors of pre-service teachers insist that elementary education prospective teachers become aware of learning styles and preferences. Research regarding learning styles suggests that teachers need to use a variety of methods in order to reach all students. Lesson plans that include visuals as well as opportunities for kinesthetic and auditory learners are required. Students learn about the multiple intelligences, constructivist learning, and ways to reach all learners. Professors model how to teach in ways that include all learners. With this in mind, the challenge in elementary education online classes became how to structure courses to include these understandings. The purpose of this study was to determine student preferences among six varied online instructional techniques based on learning styles.

Literature Survey

The promise of online instruction includes ease of access for students, flexible teaching and learning approaches, and enhanced educational opportunities (Rovai, Ponton, Wighting, & Baker, 2007). Time constraints, travel costs, and conflicting work schedules are often cited as reasons for engaging in online courses. Students report positive feelings toward online courses in regard to these areas, and that online classes have had a positive impact on computer skills (Sullivan, 2002; Cauble & Thurston, 2000, Walker, 2005).

Additional factors that lead to student satisfaction in online environments are learner-center activities (Ellis and Cohen, 2005; Pelz, 2004; Sahin, 2007), instructor support (Areti, 2006; Chen & Guo, 2005; Pelz, 2004; Sahin, 2007), and active learning strategies that establish the relevancy of the content (Sahin, 2007).

Community also plays an important role in online courses. Students value the interactions of learning communities and group activities (Pelz, 2004; Sahin, 2007, Swan 2001). One appeal of online courses is the flexibility of group meeting times and formats. Groups are able to choose a communication venue comfortable for everyone. Bielman, Putney, and Strudler (2000) report that students found ways to add emotion to written work through the use of smiley faces and other symbols. Students have found a way, through the use of emoticons, to simulate communication found in face to face classes. This ability to add emotion and personality to communication enhances the sense of community.

Gender is emerging as a factor impacting student satisfaction in online courses. In a study of female university students Sullivan (2002) found that the majority of the women in the study enjoyed online classes. Beyond the issues of convenience and flexibility, these students felt the online atmosphere offered a better social atmosphere for the expression of their ideas and opinions (Rovai & Baker, 2005).

Swan (2003) concluded after reviewing the literature in online course design and student success that 1) interaction with course interfaces became a factor in learning: difficult, negative interactions decreased learning; 2) greater clarity and consistency in course design and expectations increased learning; and 3) continual assessment and individual feedback in addition to frequent and supportive interaction with the instructor critically impacted student learning. Furthermore, Graff (2003) concluded that student learning styles impacted success in online courses.

Methods

In order to garner more information regarding student opinions and preferences, a case study was conducted to determine the impact of learning preferences in an online curriculum course. Data were collected from thirty-two graduate students enrolled in two curriculum courses for Master of Arts in Education (MAEd) program at a southeastern university. *Leading Curriculum Revision and Implementation*, a course required of all students enrolled in the MAEd program for elementary education students, was accessed during five week summer session. This course explored the structure of the elementary school curriculum while emphasizing philosophy, policy, design, implementation, and assessment of school curriculum. Both pre-service and in-service teachers were enrolled in these online courses. All students were female. This study considered the following six instructional techniques in an

online setting. Students experienced the instructional strategies as they completed the six content modules for the course. The primary research questions were 1) Which online instructional module did students most prefer? 2) Which online instructional module did students least prefer? See Table 1 below for a description of the modules.

Students were asked to rate the instructional strategies in terms of their most and least preferred technique using a rating scale in a survey administered at the conclusion of the class. The response rate was 100%. This survey was pilot tested in another section of this course. Data were also gathered through student reflections that described their preferences. Reliability and validity were addressed through data triangulation, member checking, and thorough descriptions. Limitations included the sample size and the reliability of the survey instrument.

Table 1. *Descriptions of Instructional Strategies*

Instructional Strategy	Description
Interactive PowerPoint Module 1	Students view an interactive PowerPoint prior to participating in an on-line discussion with an assigned group. Group and individual response papers are submitted.
Group Discussion Module 2	Students read and respond to text content in self-selected subgroups.
Audio Files Module 3	Students listen to an auditory lecture and discuss the content in assigned groups. An audio file summarizing the group's discussion is submitted.
Read and Respond Module 4	Students read their assigned text and respond individually to questions at the end of the chapter. The individual responses are read by other students in the group.
Read and Teach Module 5	Students read their group's assigned text and create a group video or digital photography project demonstrating the content of the assigned text.
Interactive Video Lecture Module 6	Students view a video lecture and submit an individual paper/reflection.

Data were analyzed based on a process outlined by Creswell (2002) for analyzing and interpreting qualitative data. After a preliminary exploratory analysis was conducted, data were analyzed per question based on emerging themes using the following four-phase process: coding the data; developing themes from the data; defining themes based on the findings; and connecting and interrelating themes (Creswell, 2002, p. 265).

Results and Discussion

The following three distinct categories emerged from the students' self reporting of the effectiveness and preference of each of the modules: independent preferences, group preferences, and technological preferences. Most surprisingly, in contradiction to research supporting the effectiveness of peer and

instructor interactions (group and technological preferences), students' top preferences were independent. Comments were analyzed under all appropriate categories to better explain overall findings in each category.

Independent Preferences

The independent preferences included the Interactive PowerPoint and Read and Respond modules. Student responses indicated a shared level of comfort with these strategies of independent instruction. The strategies "allowed...(student) to review at own pace" and seemed "easy." Obviously, convenience was not lost on the students. Though several students stated that they did not feel the independent strategies were effective in terms of information retained, students referred to the independent strategies as most preferred in large part due to the convenience and ease of being able to work at one's own pace. Grades also became a factor in some students preferring these modules. One student commented, "I especially liked my grade. No one else had a part in it." In addition to convenience of work schedule and ease of determining grades, many students also stated that they were familiar and comfortable with this technology. Independent strategies utilizing PowerPoint and read and respond assignments were viewed as common modes of instruction in online courses. In fact, one student reflected that these types of strategies were the "traditional online format." These same modes of "traditional online instruction" were referred to as "bleak and uninteresting" and "boring and redundant." Despite acknowledging the benefits of interactive learning, students remained steadfast in preferring strategies that were convenient, comfortable, and allowed control over one's grade, in essence passive modes of instruction.

Group Preferences

The group strategies found in the group discussion and read and teach modules elicited similar opposing views in preference and effectiveness. Some students reported success in sharing ideas with groups online. One student wrote "group discussions are always an effective way to learn new material, when dealing with a lot of information it helps to hear others' voices." Some students found success in these modules due to the fact that they viewed themselves as a contributing member of the group. A student wrote that she "likes the collaborative project that allowed them to create their own strategy to teach." Still, other students lamented over the difficulty of getting the group together and the fact that group work seemed to "take longer to complete." Another shared that this was perhaps the most difficult of all the modules due to not being able to "meet face to face and not having access to technology." As in the independent strategies, convenience and comfort seemed to guide students' preferences.

Technological Preferences

The technology strategies experienced in the audio files, interactive video lecture, and read and teach modules evoked even more divided responses from the students. Students seemed to recognize the importance of incorporating technology and varying instructional technological strategies into teaching, but did not prefer participating in these modes of instruction. Conquering the technology became the focus and concern of many students as opposed to the understanding the content. Issues of access and technological support were also seen as roadblocks to fully enjoying these modules. Still, there were some students who embraced the idea of technology and deemed the modules "out of the ordinary that provided a method of instruction least familiar." One student compared the audio files assignment with more typical discussion board assignments seen online: "I felt that this was a very interactive model and enjoyed listening to other discussions. This was almost better than the discussion board because you heard real people instead of just seeing writing." Perhaps the most interesting (disheartening) comments to emerge in the technology modules were related to the video lecture. Several students indicated a strong like of how the "instructor pointed out the most important points." One student in particular commented on how they "enjoyed someone telling the important facts versus having to decipher them for myself."

Despite knowing the research supporting varied instructional strategies, it appears that convenience and comfort are the driving factors in preference. The survey data further illustrates this trend in preference. See Table 2 below for the percentage of student selections per preference level. Though the majority of

students preferred the independent modules of instruction which seemed most convenient, comfortable, and easy to complete, students repeatedly stated in the student reflections that the overall varying modules reinforced the concept of differentiated instruction in a classroom. These pre-service and in-service teachers experienced it firsthand as they participated in the six modules. Comfort, convenience, and ease were not at the top of their list when contemplating their overall experience in the course. In place of those descriptors were diversity, exciting, challenging, new technology, and new strategies. Though low participant numbers decrease the level of generalizability of these findings for all online courses, the findings do offer insight into the design of online courses in elementary education.

Table 2. *Instructional Strategies Preferences*

Preferential Level	Interactive PowerPoint	Group Discussion	Audio Files	Read and Respond	Read and Teach	Interactive Video Lecture
Most 1	12.5%	18.7%	3.1%	34.4%	12.5%	18.7%
2	50%	15.6%	9.3%	18.7%	0%	6.2%
3	18.7%	28.1%	6.2%	15.6%	12.5%	12.5%
4	9.3%	21.8%	12.5%	15.6%	18.7%	21.8%
5	6.9%	9.3%	21.8%	6.2%	28.1%	28.1%
Least 6	3.1%	6.2%	46.8%	9.3%	21.8%	12.5%

Conclusions

What does this mean for online instruction for education courses? Like everything else in education, a balance of approaches is needed. One size does not fit all, even in online settings. The students' preferences reflect this. Certainly providing an online course in which students experience different modes of instruction not only makes students aware of preferences they hold in instruction, but also raises an awareness of the importance of incorporating all modes of instruction in the classroom. Passive online instructional strategies, though seemingly preferred, appeared to elicit only superficial comments in terms of ease, convenience, and comfort level. When mixed with more interactive technological strategies, students experienced overall "Aha" moments. The researchers would argue it is the "Aha" moments that make learning worth the effort.

References

- Areti, V. (2006). Satisfying distance education students of the Hellenic Open University. *E-Mentor*, 2(14),1-12.
- Bielman, V., Putney, L., & Strudler, N. (2000). Constructing community in a postsecondary virtual classroom. Paper presented at the annual meeting of the American educational Research Association, New Orleans, LA.

- Cauble, E. A., & Thurston, L. P. (2000). Effects of interactive multimedia training on knowledge, attitudes, and self-efficacy of social work students. *Research on Social Work Practice, 10*, 428-437.
- Chen, D. & Guo, W. (2005). Distance learning in China. *Journal of Distance Education Technology, 3*(4),1-5.
- Creswell, J. (2002). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Thousand Oakes, CA: Sage Publications.
- Ellis, T. & Cohen, M. (2005). Building the better asynchronous computer mediated communication system for use in distributed education. *Proceedings of the 35th Frontiers in Education Conference* (pp T3E15-T3E20). Piscataway, NJ: IEEE.
- Graff, M. (2003). Learning from web-based instructional systems and cognitive style. *British Journal of Educational technology, 34*(4), 407-418.
- Pelz, B. (2004). Three principles of effective online pedagogy. *JALN 8*(3), Retrieved November 2007 from http://www.sloan-c.org/publications/JALN/v8n3/v8n3_pelz.asp
- Rovai, A. & Baker, J. (2005). Gender differences in online learning. *Quarterly Review of Distance Education, 6*(1), 14-27.
- Rovai, A., Ponton, M., Wighting, M., & Baker, J. (2007). A comparative analysis of student motivation in traditional classroom and e-learning community. *International Journal on E-Learning, 6*(3), 413-432.
- Sahin, I. (2007). Predicting student satisfaction in distance education and learning environments. (ERIC Document Reproduction Service No. ED 496541).
- Sullivan, P. (2002). "It's easier to be yourself when you are invisible": Female university students discuss their online classroom experiences. *Innovative Higher Education, 27*(2), 129-144.
- Swan, K. (2001). Virtual interaction: Design factors affecting student satisfaction and perceived learning in asynchronous online courses. *Distance Education, 22*: 306-331.
- Swan, K. (2003). Learning effectiveness: What the research tells us. In J. Bourne & J. Moore (Eds.) *Elements of Quality Online Education, Practice and Directions*. Needham, MA: Sloan Center for Online Education, 13-45.
- Walker, S. (2005). Development of the distance education learning environments survey (DELES) for higher education. *The Texas Journal of Distance Learning, 2*(1), 1-16.

Manuscript received 2 Aug 2007; revision received 26 Nov 2007.



This work is licensed under a

[Creative Commons Attribution-NonCommercial-ShareAlike 2.5 License](https://creativecommons.org/licenses/by-nc-sa/2.5/)