

Students' Attitudes and Perceptions of Online Instruction

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Abstract

This study examines several variables that can affect students' attitudes and perceptions of online instruction: prior experience with computers, peer interaction, teacher/student interaction, and institutional support. Data was collected over an 18 month period, reflecting the time students were enrolled in an online Master's of Science Instructional Design and Technology (MSIDT) program. Data included two reports filed by an external evaluator; responses to a discussion board prompt, "Being an Online Student;" midpoint reflections written by each of the students; and an end of the program survey. Findings support previous research

related to students' attitudes and perceptions of online instruction. The researchers provide recommendations to help educators plan and design positive online learning experiences based upon specific examples of how students' prior experience with computers, peer interaction, teacher/student interaction and experiences with institutional support hindered or encouraged their feelings of inclusiveness (community), motivation, and learning.

Background

Researchers have found that the majority of online students are adult professionals seeking advanced training or a degree. The consumer demands of adult learners seeking opportunities to enhance their professional skills at an accelerated pace are the key drivers of change in the design and delivery of online courses and programs. Given this phenomenal upsurge in the demand for distance education, Keeton (2004) projects that the rapid growth of online instruction "promises that online instruction may become the largest source of ongoing higher education" (p.75). As online instruction accelerates, educators need to ensure that the quality of instruction is not overlooked, as well as address such issues as students' attitudes and perceptions of online instruction and how these issues may or may not influence their motivation or achievement in a course. This study addresses, identifies, and provides examples of multiple variables that can influence students' online learning experiences. This information can be used to help educators better plan and design online learning experiences.

Theoretical Basis

Researchers have identified several variables that can affect students' attitudes and perceptions of online instruction, including prior experience with computers, peer interaction,

teacher/student interaction, and institutional support. Huang (2002) cites numerous research studies (Anderson & Reed, 1998; Lauzon & Moore, 1989; Wells, 1997; Zhang & Espinosa, 1998) that support the notion that the more experienced a user is with using the computer, the more likely the user will have a positive attitude toward using computers. Huang's research suggests that students who have a positive attitude toward computers are more likely to have positive perceptions of online learning, also. Studies by Irani (1999) and Kumar (1999) indicate that students' attitude toward online instruction is influenced by their previous experience with distance education.

Peers are influential, also. Peers may encourage or discourage each other from enrolling in online courses, as well as influence a learner's satisfaction of the online learning experience (Irani, 1999; Jung, Choi, Lim, & Leem, 2002; Shin, 2003). Jung et al. (2002) found that students' satisfaction with online learning environments was strongly related to the amount of active interaction with other learners, noting that small group activities can enhance learning motivation. Shin (2003) reports this as well, noting that peer interaction is more likely to affect students' course completion rate and motivation towards distance learning than their perceived academic achievement. Both Jung et al. and Shin failed to find any relationship between peer relationships and learning achievement. Shin documents previous research (Egan & Gibb, 1997; Kirkup & Priimmer, 1990; Morgan & Thorpe, 1993) that suggests, "...peer contact or interaction can enrich a distance student's learning experience, including the areas of satisfaction as well as cognitive development" (p. 80), but notes that her own study indicates that the effect of students' peer interactions is "...more evident in an affective domain such as attitude, satisfaction, or motivation toward distance learning rather than in a cognitive domain of learning" (p. 80). Jung et al. (2002) investigated academic, collaborative, and social interactions with attitude,

satisfaction, participation, and learning toward online learning and found that collaborative interaction among students did not increase learning achievement. Rather, student interactions increased students' satisfaction toward online learning – as they did in Shin's study.

Learning achievement in online learning environments can be attributed to teacher/student interaction. This is not to say that the instructor is the “sage on the stage,” but the facilitator and guide for information sharing, student encouragement, and assistance. Both Jung et al. (2002) and Shin (2003) found that the teacher's presence and instructor's social interactions with students influence students' motivation, course engagement, and learning achievement. Jung et al. note the importance of instructor expectations for students' participation in discussions and the importance of the instructor “...to recognize students' involvement in discussion by using motivational feedback aimed at promoting learner participation in interaction” (p. 157). Instructor assistance, interpersonal encouragement, and collaborative peer interaction is needed to create more satisfactory and effective online learning environments (Shin, 2003).

Kumar (1999) examined online learners' academic self-concept, study habits, and attitudes toward distance education. He concludes that:

...if the performance of distance learners is to be enhanced, attempts should be made to create an environment through print/non-print media, and in personal contacts with distance learners, that will help increase their academic self-concept as well as provide guidance on good study habits. Further, solving any individual problems and providing the best possible

support systems may help to develop a positive attitude towards distance education (p. 57).

In addition to peer and instructor support, institutional support (e.g., student services, technical support and interface, etc.) is critical to students' attitudes and perceptions of online learning. Shin's (2003) findings support previous research that indicates students' interactions with the institution can affect the students' academic success and course completion – more so than peer or teacher interaction.

Research on students' attitudes and perceptions of online learning indicate the importance of ensuring students have the necessary computer training before taking an online course; building and maintaining student motivation, self-concept, and course satisfaction; and providing continued institutional support. A positive gateway to instruction is key; it is important for online learning institutions to provide the necessary support to ensure learners maintain a positive attitude toward online learning. Once online, the instructor's presence, clarity of expectations, and encouragement can assist students' learning achievement and motivation. Learners' satisfaction and motivation can be enhanced through peer collaboration and support, also. Hence, by providing a stable and supportive learning environment, students are more likely to have a positive attitude toward online learning, which can promote retention and learning achievement.

Method

The researchers examined several sources of information collected over an 18 month time period, reflecting the time students were in an online Master's of Science Instructional

Design and Technology (MSIDT) program. The MSIDT focuses on the direct applications of technology for teaching, learning and curriculum development used by professionals in K-12, business, industry, military, or corporate settings. It consists of ten courses (30 units) in an 18 month year-round program with two courses per each 16-week term segment. Students are required to attend a face-to-face orientation (Boot-up Camp) and a midpoint session.

The data included two reports filed by an external evaluator; responses to a discussion board prompt, “Being an Online Student;” midpoint reflections written by each of the students; and an end of the program survey. The first report filed by the external evaluator described students’ professional and academic goals at the beginning of the program. The second report was generated after the first two term segments and was an assessment of the strengths and weaknesses of the MSIDT program to date. This report included both student and faculty perspectives. Responses to the discussion board prompt, “Being an Online Student,” were collected at the beginning of the second term and asked students to describe what was helpful about their online learning experiences during the first term, and how these experiences may be improved. Midpoint reflections were collected approximately nine months into the program and asked students to reflect on their professional goals -- how they may have changed since the beginning of the program, their current strengths and weaknesses, their final projects, and what they would like to accomplish by the end of the program. An end of the program survey, consisting of 15 questions, was emailed to students following the graduation of the first cohort. Fifteen of the 18 students responded.

Findings

The researchers used a key analytic strategy of coding to both categorize qualitative data and also describe the implications and details of these categories (Glaser and Strauss, 1967). . Thus, both open coding and then selective coding were utilized to systematically code data with respect to the core concepts or the four variables that can affect students' attitudes and perceptions of online instruction: prior experience with computers, peer interaction, teacher/student interaction, and institutional support. Findings are as follows:

Prior Experience with Computers

Prior to being admitted into the MSIDT program, students submit a resume, autobiography, and complete an interview. One of the requirements for entering the MSIDT program is experience with computers, including MS Office, navigating the internet, and using email to send, received, attach, and download messages. All students in the program have these prerequisite skills; however, data shows that some students in the first cohort had additional or advanced skills in programs like Macromedia Director, Flash, and so on. These students were identified early on by their peers to serve as mentors in courses where authoring skills were a requirement. Students noted that there were "educational specialists and technology specialists.....all contributing to a holistic understanding of the ID field;" "team leaders, technical experts, learning experts, production volunteers;" "some members were relied upon for certain technical skill;" "the online technical support person, the devil's advocate, the lost soul, and many people that were often supportive, helpful, or creative." Data seem to reveal that students in the cohort recognized and valued each member's contribution to the online learning community, whether or not they were advanced technology users. Students' comfort with their

own technology skills (prior computer experience) may have made it easier not to feel intimidated by another's advanced skills; as one student stated, "It pushed me to catch-up to their level." The data collected for this study appears to support the notion that students' prior experience with computers can boost positive perceptions of online learning, as noted by previous researchers (Huang, 2002).

Peer Interaction

Researchers have found that students' satisfaction with online learning environments is strongly related to the amount of active interaction with other learners, noting that small group activities can enhance learning motivation (Jung et al, 2002; Shin, 2003). Creating a safe learning environment through positive social relationships can support these interactions. Data collected during this study support this. Several of the strengths that students identified with the MSIDT program include: social posting threads, group projects, group discussions, and face-to-face meetings (orientation and midpoint). Students' comments include:

Each member of the cohort was an integral part of the learning community. We all came to the program with our own strengths and weaknesses and looked to the community to fill the missing areas. Each member challenged me to become my best by asking questions and commenting on my discussion responses.

The relationships you have with others are very important. They help clarify certain issues and you can lean on them for support when needed.

The boot-up, midpoint, and commencement experiences were necessary since the relationships needed to be established in order to gain a sense of trust with peers and instructors, I don't feel I would have felt as much of a sense of drive completing the program had I not established relationships with my peers and instructors early on by meeting face-to-face. It would have been much easier to quit halfway through if it had all been online.

Social relationships, especially online, are important for learning to occur, in that the exchange of experiences, ideas, and prior knowledge is more natural when all members feel socially connected to the community.

Social relationships enhance and motivate learning. They also increase the range of ideas and perspectives brought to light in gathering new knowledge.

Most students (74%) used social networking to decrease their sense of isolation. Ninety-three percent felt a sense of belonging to the MSIDT online learning community.

Overwhelming, students reported a sense of inclusiveness and support from their peers via their interactions through discussion boards, working in groups, peer evaluation, and email.

Some of their comments include:

Interaction on the discussion boards is what made the inclusion happen.

Most students made me feel included. We asked each other for ideas and were always flattered to share our knowledge.

Private emails that were wither jokes or social/unrelated to a specific assignment contributed to the feeling of inclusion.

I made sure to work with different members throughout the program. So I did not feel excluded.

I believe for the most part everyone wanted to help each other get through the program and kept pretty positive.

While such positive interactions and relationships may contribute to students' satisfaction toward online learning, only 26 percent of the MSIDT students stated that the most meaningful learning came about through their interactions with others. This supports research by Jung et al (2002) that found that collaborative interaction among students does not necessarily increase learning achievement.

Negative experiences can lead students to feel excluded and, perhaps, decrease their desire to continue in a program or interact with certain individuals. For example, one student noted how he/she felt excluded once by a classmate who snubbed his/her request for help. The student noted: Needless to say, I did not email (him/her) ever again. Another student expressed

that complaining, name calling, and finger pointing closed down learning. Another student commented how he/she felt excluded in the beginning, but developed his/her own sense of community by communicating with others with similar interests and backgrounds as him/herself.

Teacher/Student Interaction

In addition to interactions with their peers, students' interactions with their instructors can influence their online learning experiences. Researchers contend that the teacher's presence and instructor's social interactions with students influence students' motivation, course engagement, and learning achievement (Jung et al, 2002; Shin, 2003). Data collected from the MSIDT cohort reflect this, documenting how an instructor's online presence can have either a positive or negative affect on students. In one course, team taught by three different instructors, students commented that there was a lack of consistency and communication among the instructors, making it difficult to understand the expectations of the course. Several students noted that the lack of instruction on an authoring tool during their first term made them feel excluded, overwhelmed, and intimidated. Lack of help and little or no instructor interaction made students feel excluded, as well. Students noted that one professor was rude and demeaning, noting that: One particular instructor had a nasty habit of sending really rude emails that attacked individual student(s). In fact, students felt as though they were being "weeded out" the first term. Needless to say, the program was re-evaluated and new instructors led the next term. Four students dropped during this time period, though they cited personal reasons.

As the program shifted in its direction, students' comments reflect a greater satisfaction with the program:

After the first semester, nearly all of the professors were extremely positive and encouraging. This made me feel included and valued.

As we moved into the third semester, it was obvious that the faculty had realized that the work load for two courses had to be managed effectively to keep morale high. For instance, in one course the bulk of deliverables were due during the first half of the semester while the other course was mostly individually reading/learning. The second half of the semester the work load reversed. I believe that this strategy was timely as some of the cohort members were feeling overwhelmed with the work and getting discouraged. This was an indication that the faculty was aware of the personal situations and commitment of the cohort members. Very timely and effective.

Instructors can positively impact students' motivation, course engagement, and learning achievement in many ways. In addition to the instructors' awareness of students' personal situations and commitment to the students' success, the instructors' approach to instruction is critical. Data reveal that group work and mandatory discussion board responses promote students' sense of community and challenged them to think more critically. Left alone to learn primarily from a text diminished students' motivation, feelings of engagement, and achievement. Data also suggest that an instructors' constant presence on discussion boards is critical and that weekly summaries of discussions – citing students by names for their contributions – helps students feel engaged and included in the course. Timely responses to emails are important, as is the thoughtfulness and caring exhibited by instructors. Positive feedback is encouraging and motivates students to try new things. Student responses on the end of the program survey

indicate that 87 percent felt comfortable sharing their ideas, information, and knowledge with their peers and instructors; 13 percent neither agreed nor disagreed.

Institutional Support

Institutional support (e.g., student services, technical support and interface, etc.) can also affect students' attitudes and perceptions of online learning. Sixty percent of the MSIDT students reported that they felt their "sense of being a member of the MSIDT community" was negatively impacted when technical difficulties of Blackboard (the online learning tool) arose. Most (73%) felt Blackboard was easy to use and navigate, noting it positively impacted their learning experience. Fifty-four percent of the students felt they had access to online support services such as Admissions and Records, Student Financial Services, Graduate Studies, Distance Education Department, the campus library and bookstore, and university technical support. Twenty-seven percent neither agreed or disagreed or did not respond.

Reports indicate that students found the online delivery of the MSIDT program very appealing and extremely beneficial to learning, but that there was room for improvement in the area of technology support. Lack of support with hardware and software problems caused the students heightened levels of frustration and stress.

Discussion

This study supports previous research suggesting that prior experience with computers, peer interaction, teacher/student interaction, and institutional support can affect students' perceptions and attitudes toward online learning. As one might expect, prior experience with computers adds to students' self-confidence and comfort-level with online instruction. In

addition, students are less likely to feel intimidated by those with advanced technology skills if they are comfortable with their own technology skills and ability to learn. Positive social interactions, discussion threads, and group work help students develop a sense of online community, increasing student motivation. Student motivation is increased when they receive support from their peers via interactions through discussion boards, working in groups, peer evaluation, and email. Just as positive interactions with peers can increase motivation, negative experiences can impede or decrease students' desire to learn or interact with others. Similarly, student/instructor interactions can affect students' online learning experiences. Students are more likely to feel valued and part of the online community when the instructor provides encouragement and is perceived as caring, thoughtful, and supportive. On the other hand, if the instructor is perceived as rude, belittling, and uncaring of students' personal needs, students may feel unsupported and excluded from the online community. In addition to the perceived attitude of the instructor, the instructor's online presence can have a positive or negative affect on students. Online presence includes responsiveness to emails, interactions on discussion boards, and feedback. The instructors' pedagogical approach can influence students' perceptions and attitudes toward online instruction as well. Students experience a more positive learning experience when they are engaged in group work, online discussions, and guided lessons from the instructor rather than having to rely mostly on a textbook for instruction. Institutional support (e.g., student services, technical support and interface, etc.) is necessary to ensure students have access to their online learning environment. Lack of support can add to students' heightened levels of frustration and stress, as well as affect their sense of community in the online environment.

Conclusions and Recommendations

It is evident from this study and previous research that students' attitudes and perceptions of online instruction can be influenced by their prior experience with computers, peer interaction, teacher/student interaction, and institutional support. This study provides specific examples of how students' prior experience with computers, peer interaction, teacher/student interaction and experiences with institutional support hindered or encouraged their feelings of inclusiveness (community), motivation, and learning. Findings indicate the need to provide a stable and supportive learning environment in order for students to have a positive attitude toward online learning. Positive attitudes and perceptions promote retention and learning achievement.

Based on the findings in this study, the researchers make the following recommendations to help educators plan and design positive online learning experiences:

Prior experience with computers

1. Assess the minimum computer skills (saving files, logging into and navigating the Internet, etc.) needed to be successful in the online program.
2. Determine which software products in which students will need to have basic, intermediate, or advanced skills.
3. Establish minimum computer requirements (e.g., Internet speed, memory, etc.) and whether or not a specific platform and operating system are required.
4. Ensure students have the necessary computer skills and meet the requirements before accepting them into the online program.

Peer Interaction

1. Create opportunities to support social interactions among students (e.g., an online social forum where students can talk about topics outside of the program.)
2. Establish a safe learning environment; review and enforce rules of netiquette and cooperation.
3. Assign group projects.
4. Establish group discussions.
5. Hold face-to-face meetings (e.g., orientation and midpoint, as well as optional end of the program event).

Teacher/Student Interaction

1. Establish consistency in all courses across the program.
2. Balance workloads among concurrent courses.
3. Communicate clear goals and expectations.
4. Be aware and supportive of students' personal situations and needs.
5. Be committed to the students' success.
6. Maintain a constant presence on discussion boards.
7. Provide weekly summaries of discussions – citing students by names for their contributions.
8. Provide timely responses to emails.
9. Give supportive and positive feedback.
10. Ensure instructors have the necessary disposition and time to teach online.
11. Teach – do not put the responsibility of instruction on the textbook.

Institutional Support

1. Ensure students have the necessary support and instruction to use required tools (software, hardware, etc.)
2. If possible, provide 24/7 technical support.
3. Provide a handbook of how to access and use support services and who to contact if students encounter difficulties.

The researchers feel confident that these guidelines and recommendations will help instructors create more effective and positive online learning environments for their students. Following the data collection and evaluation associated with this study, these guidelines have been implemented into the MSIDT program with great success.

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