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Editor's Note: Student feedback provides valuable guidance to those who design and those who implement distance learning programs.

Exploring Community College Student Perceptions of Online Learning

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Abstract

Successful completion of online courses by community college students is an issue both at the national and local level. The purpose of this qualitative study was to explore community college student perceptions of online learning within the theoretical construct of the Community of Inquiry (CoI) model, which describes the manner in which the elements of social presence, teaching presence, and cognitive presence interact to create an educational experience. An online questionnaire, interviews, and artifact reviews were employed in the study. Interpretive analysis was utilized to identify themes and provide insights into student perceptions of satisfaction and success with online learning. The findings of the study revealed aspects of community college student perceptions about online courses, related these perceptions to the social presence, teaching presence, and cognitive presence components of the Community of Inquiry model, and provided examples of successful instructional design and course facilitation techniques utilized in the online courses. The study findings provided insights about student perceptions related to communication and interaction, isolation, preferred course activities, and the positive impact of prompt and helpful instructor feedback. Recommendations for practical applications by instructional designers and instructors are provided.

Keywords: online learning, community college, distance education, community of inquiry, social presence, cognitive presence, teaching presence, online student perceptions, student success, student satisfaction, instructional design.

Introduction

Higher education online enrollments in the United States continue to grow each year (Allen & Seaman, 2010). Lower retention of online students than of traditional face-to-face classroom students has been a concern for institutions of higher education for quite some time (Carr, 2000; Conklin, 2008; Diaz, 2002; Patterson & McFadden, 2009). A national survey of community college distance education administrators indicated low course completion rate as one of the top challenges faced by respondents with an average course completion rate of 65% for distance education courses and 72% for traditional courses (Instructional Technology Council, 2009). In a study of community college students enrolled in online and traditional courses during a five-year time span (2001-2006), Conklin noted a significantly higher rate of dropout for those enrolled in online courses. With growing enrollments, successful completion of online courses continues to be a concern. The lower course completion rate for the increasing population of distance learning students needs to be addressed to promote online student success. A qualitative study of community college student perceptions about online courses will address this problem and has the potential to provide insights and reveal themes, online pedagogy techniques, and methodologies which promote student satisfaction and successful completion of online courses.

Purpose

The purpose of this qualitative study was to explore community college student perceptions of online learning within the theoretical construct of the Community of Inquiry (CoI) framework proposed by Garrison, Anderson, and Archer (2000), which describes the manner in which the

elements of social presence, teaching presence, and cognitive presence exist together to create an educational experience. The study focused on the following research questions:

1. How do community college students in an online course perceive and describe their educational experience in terms of social presence?
2. How do community college students in an online course perceive and describe their educational experience in terms of teaching presence?
3. How do community college students in an online course perceive and describe their educational experience in terms of cognitive presence?
4. How do community college students in an online course perceive and describe their educational experience in terms of course satisfaction?

Literature Review

The CoI framework models the manner in which the elements of social presence, teaching presence, and cognitive presence combine to create an educational experience that supports and enhances learning (Garrison, 2007). Social presence is defined by Garrison (2009) as "the ability of participants to identify with the community, … communicate purposefully in a trusting environment, and develop inter-personal relationships by way of projecting their individual personalities" (p. 352). Teaching presence is multi-faceted and involves determining curriculum, choosing methodology, facilitating, and providing focus on tasks (Garrison, 2007). Cognitive presence refers to "the exploration, construction, resolution and confirmation of understanding through collaboration and reflection in a community of inquiry" (Garrison, 2007, p. 65). Within a CoI, an educational experience is a learning environment created in collaboration by faculty and students through which meaningful and worthwhile knowledge is constructed (Garrison, 2006).

Research about various elements of the CoI framework has been conducted and summarized in the literature (Garrison, 2007; Garrison & Arbaugh, 2007; Rourke & Kanuka, 2009). Cleveland-Innes, Garrison, and Kinsel (2007) found that online learners experience an adjustment process during an online course as related to the components of the CoI framework which includes cognitive presence, social presence, and teaching presence. The elements of a Community of Inquiry (social presence, teaching presence, and cognitive presence) have been linked with student satisfaction in the literature (Akyol & Garrison, 2008; Arbaugh, 2005; Garrison & Arbaugh, 2007; Richardson & Swan, 2003; Shea, Pickett, & Pelz, 2003; Swan & Shih, 2005). Richardson and Swan determined that the element of social presence in discussion board postings was a significant predictor of perceived learning and course satisfaction. On average, students who reported high levels of teaching presence indicators related to "instructional design and organization also reported high levels of satisfaction and learning" (Shea et al., p. 75). This trend was evident to a lesser extent for the teaching presence roles of direct instruction and facilitating discourse (Shea et al.). According to Rovai (2002), students "who have stronger sense of community and perceive greater cognitive learning should feel less isolated and have greater satisfaction with their academic programs" (p. 328). The literature presents several predictors of student satisfaction:

1. Social presence factors (Akyol & Garrison, 2008; Arbaugh, 2005; Garrison & Arbaugh, 2007; Lin et al., 2008; Richardson & Swan, 2003; Swan & Shih, 2005)
2. Teaching presence factors (Akyol & Garrison, 2008; Arbaugh, 2005; Garrison & Arbaugh, 2007; Lin et al., 2008; Shea et al., 2003)
3. Cognitive presence factors (Akyol & Garrison, 2008)
4. Factors intrinsic to the learner: self-efficacy and self-regulation of their time and study environment (Lin et al., 2008).

Satisfied students are more likely to be successful. Levy (2007) studied over 400 undergraduate and graduate online students' attitudes towards e-learning and found that student satisfaction was a major factor in successful online course completion. Non-completers had significantly lower satisfaction than students who successfully completed the same online course.

Cross (1992) categorized situational, dispositional, and institutional barriers faced by adult learners. While some situational, dispositional, and institutional barriers may be mitigated by online education, they still exist; online education introduces additional barriers related to social interaction, technology, pedagogy, and accessibility issues (Morris, 2009). Menchaca and Bekele (2008) developed a conceptual framework to depict success factors for online students. The major categories of the Menchaca and Bekele framework are human factors (perceptions, attitudes, and competencies), course factors (instructional design and organization aspects of teaching presence), leadership factors (focusing on the role of the administration), pedagogic factors (related to the facilitation and direct instruction aspects of teaching presence), and technology factors (ease of use, dependability). A synthesis of the barriers and success factors proposed in the literature (Cross; Liu et al., 2007; Menchaca & Bekele) results in six categories: situational, dispositional, institutional, technological, social, and pedagogical factors. Student success factors may be predominantly intrinsic to the learner (dispositional and situational), predominantly extrinsic to the learner (institutional and pedagogical) or a combination of intrinsic and extrinsic (technological and social) in nature. The social presence and teaching presence elements of the CoI influence social and pedagogical factors (Akyol & Garrison, 2008; Garrison, 2007; Garrison & Arbaugh, 2007; Garrison & Cleveland-Innes, 2005; Ice et al.; 2007; Ice et al; 2008; Mykota & Duncan, 2007; Richardson & Swan, 2003; Shea et al., 2005; Shea, 2006; Swan & Shih, 2005). The elements of social presence and teaching presence facilitate development of cognitive presence (Garrison & Cleveland-Innes; Schrire, 2004). See Figure 1 for a conceptual model of six student success factors which depicts extrinsic factors, intrinsic factors, and the influence of the CoI elements of social presence, teaching presence, and cognitive presence.
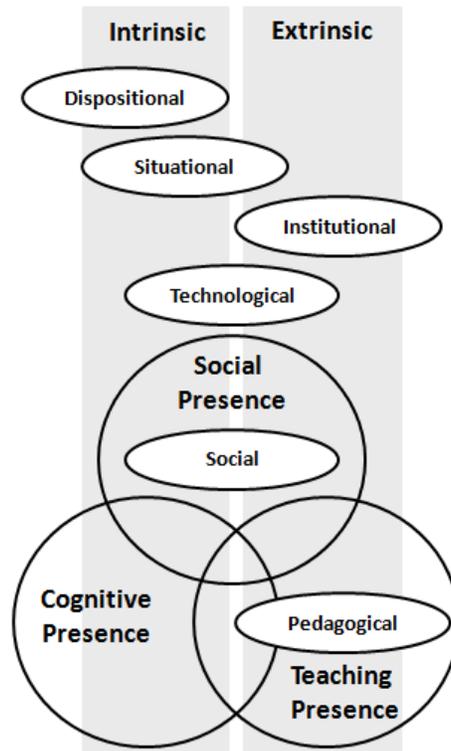

Figure 1. Student Success Factors and the Community of Inquiry

Methodology

Qualitative research "seeks to understand the world from the perspective of those living in it" (Hatch, 2002, p. 7). The qualitative study was conducted using an online questionnaire, interviews, and artifact reviews. An opportunity to participate in the study was offered to 144 online community college students in five courses which represent three different disciplines: liberal arts, social science, and information. Within this purposefully chosen group of disciplines, the study participants were self-selected because students are offered a choice at registration of day, evening, and online course sections.

Questionnaire. The online questionnaire was comprised of six open-ended questions and a limited number of demographic questions. According to Brookfield (1995), a critical incident is "a vivid happening that for some reason people remember" (p. 114). Brookfield developed a series of questions intended to trigger thinking and reflection about critical incidents, called the Critical Incident Questionnaire (CIQ). Brookfield (2006) indicated that reflection of this type is useful to discover how students are experiencing the course and helps the instructor to "obtain invaluable information about the submerged dynamics and tensions that are either inhibiting or enhancing learning" (p. 29). Although the original purpose of the CIQ was for a classroom teacher to obtain rich student feedback, the CIQ has been utilized by researchers as an instrument (Gilstrap & Dupree, 2008; Glowacki-Dudka & Barnett, 2007). An adaptation of the CIQ was used to engage participants in reflection as they write about their online course experience. The open-ended questions are shown below:

1. At what point in the class this semester did you feel most engaged with what was happening?

2. At what point in the class this semester did you feel most distanced with what was happening?

3. What action that anyone (teacher or student) took in class this semester did you find most affirming or helpful?

4. What about the course surprised you the most? (This could be something about your own reaction to what went on, or something that someone did, or anything else that occurs to you.)

5. Describe your level of satisfaction with the course. What do you believe influenced your satisfaction the most?

6. Do you believe that you will successfully complete this course? Why or why not?

Demographic questions were limited to those needed for foundational information about the study participants. Participation in the questionnaire was voluntary. The questionnaire was begun by 34 students out of a total of 144 potential respondents. 25 students completed the questionnaire. The response rate was 17 percent.

Interview. Swan and Shih (2005) developed a series of open-ended interview questions for their research on social presence in online course discussions. The interview questions used in this study were an adaptation and extension of the Swan and Shih work and inquire not only about online course discussions but also about the use of other types of communication and collaboration technologies. Interview invitees were purposefully chosen from the self-disclosed questionnaire participants with the goal of selecting subjects in a variety of disciplines who provided information-rich questionnaire responses. Participation in the interview was voluntary. Seven interviews were conducted and ranged in length from 22 minutes to 50 minutes. The interview provided an opportunity to more deeply explore the participant's perspectives about their online course experience.

Artifact review. Online course syllabi and rubrics for assignments such as discussion question responses were requested from the instructors. The artifacts were available for use in triangulation and were useful to provide a context for the perspectives shared by the participants. The artifacts were also utilized to document instructional design or pedagogical techniques described by participants in their responses—for example, rubrics for course activities, policies noted in syllabi, or engaging course activities.

Participant Characteristics

The 25 participants were students in online courses at a Midwest community college. Table 1 depicts participant characteristics. It is of note that the students who self-selected to participate in the survey represented experienced online learners, with only 8% currently taking their first online course and with 60% who have taken two or more previous online courses.

Table 1

Characteristic	Female	Male	Total	Percent
Age				
18-24	6	4	10	40%
25-34	3	3	6	24%
35-44	4	2	6	24%
45-54	3	0	3	12%
Status				
Full-time	8	4	12	48%
Part-time	7	5	12	48%
Decline to answer	1	0	1	4%
Course Discipline				
Information Technology	3	1	4	16%
Liberal Arts	11	5	16	64%
Social Science	2	3	5	20%
Online Course Experience				
None	0	2	2	8%
One previous online course	7	1	8	32%
Two previous online courses	4	3	7	28%
Three or more previous online courses	5	3	8	32%

As shown in Table 2, over half (52%) of this group of veteran online learners indicated a login frequency of three to six times each week. Daily logins were reported by close to half (44%) of the study participants. Only one respondent indicated a low login frequency of once or twice each week.

Table 2

Previous Online Experience	Once or Twice Per Week	Three to Six Times Per Week	Every Day
None	0	2	0
One online course	1	3	4
Two online courses	0	5	2
Three or more online courses	0	3	5

Interview Participant Profiles

Students from each discipline were invited to participate in an interview. Seven students were interviewed. Table 3 shows an overview of interview participant characteristics.

Table 3

Discipline and Course Subject	Gender	Age Range	Previous Online Courses	Pseudonym
Information Technology				
Web Development	Female	45-54	3 or more	Susan
Liberal Arts				
Philosophy	Female	35-44	1	Maria
Philosophy	Male	25-34	2	Noah
Social Science				
Economics	Female	35-44	2	Keisha
Economics	Female	25-34	2	Alexis
Geography	Male	18-24	0	Ali
Geography	Male	35-44	2	Thomas

The interview participants included individuals with a variety of backgrounds and educational goals. Only one of the seven interview participants was enrolled in their first online course. A profile for each interview participant is provided below.

Ali wanted to complete an Associate Degree and eventually major in chemical engineering. He decided to take his first online course to save time driving to school. Ali enrolled in a geography course to satisfy general education requirements. As a first time online student, Ali typically logged in three to six times per week and was surprised by "The fact that I'm enjoying learning the material for the first time as an independent. It's very self-fulfilling being able to study in an online course and enjoy the material without someone lecturing."

Susan enrolled in an online computer technology course to pursue personal interests. She was an experienced online student who enjoyed the flexibility that online courses offer. Susan has successfully completed more than three online courses. She logged in to the online web development course every day. Susan noted the importance of a sense of belonging in an online course that begins "within the discussion board area, [with] feedback from students, and feedback from the instructor."

Keisha enrolled in the economics course to prepare for business courses in graduate school. A part-time student, Keisha was a full-time working mother and chose online courses for the flexibility they provided to balance her work and life. An experienced online student, she has taken two online courses. Keisha logged in to her online course every day and expected to be successful but felt "disconnected from the interaction with other students" and wished for more.

Thomas was actually a graduate student enrolled in an online geography course at the community college to complete requirements for teacher certification. He chose an online course for flexibility — he worked full-time and was the parent of two children. An experienced online student, Thomas has completed two other online courses. He logged in to his online geography course three to six times per week. Thomas enjoyed the online experience and stated, "it's comfortable for me as opposed to sitting in courses a lot of times because I am an older student. Sometimes I'm self-conscious of the fact that I'm old enough to be some of the students' parents."

Alexis was employed full-time and she enrolled in three courses during the semester in order to make progress towards her short-term goal of completing an Associate Degree. Eventually Alexis would like to major in business administration at a local university. She chose the online economics course in order to fit it into her busy schedule. Alexis was an experienced online student and has already taken two online courses, although she did not successfully complete either of them. Determined to succeed this time, Alexis emphasized her resolve and stated "it's a motivation thing … there's definitely a different attitude I had going into this class than I did the previous two I signed up for."

Maria worked full-time and was the parent of two children. Her goal was to transfer to a college or university without earning an Associate Degree. Maria enrolled in the online philosophy course for convenience. She has successfully completed one other online course. Maria logged in to her online course every day and enjoyed interacting on the discussion board with her fellow online students. She stated "the online medium offers more benefit because in a classroom environment you don't have as much time to think through what you're going to say and if you take too long then the moment's past."

Noah was a transfer student with the goal of earning an Associate Degree. The father of two children, he worked full-time during the day. Because his wife worked in the evening, Noah chose to take an online course to fit in with his family and work responsibilities. He has already completed two online courses and logged in to his online philosophy course three to six times per week. Noah recalled being engaged in his online course right from the start, "So, within the first week, even though you weren't in a classroom with these people, you were already interacting with them [on the discussion board] and getting to know people, even though you'd never met them."

Data Analysis

The researcher carefully reviewed the questionnaire responses, interview transcriptions, and artifacts. Next, interpretive analysis began. Over 40 preliminary coding categories were created after two reviews of the data. A third review of the data resulted in categorization of the following five themes: communication/interaction (social presence), instructor involvement/support (teaching presence), instructional design (teaching presence), learner engagement with content (cognitive presence), and learner characteristics/needs (dispositional and situational factors). The next section discusses the results of the analysis as related to each research question.

Results & Discussion

How do community college students in an online course perceive and describe their educational experience in terms of social presence? The findings demonstrated that communication and interaction with others through discussion board participation was a major source of engagement for students. All courses in the study included opportunities for interaction in a discussion board. However, not every course required regular participation in the discussion board. It was common for online students to feel distance or isolation at some point during their online course experience, with the most frequently cited time at the beginning of the course. The three students who indicated they usually felt isolated were enrolled in courses without required discussion board participation. Regular interaction and communication utilizing a discussion board seems to benefit most online students.

How do community college students in an online course perceive and describe their educational experience in terms of teaching presence? The findings demonstrated the impact of instructor involvement and support which was described as the most helpful or affirming point in the course by 64% of the study participants. The instructor actions which were noted included feedback, quick response via e-mail or discussion board to a question, and review of assignment drafts. Prompt and helpful instructor support and response seems to benefit many online students.

The findings also demonstrated the influence of instructional design. Almost one-quarter of the study participants attributed their expectations of successful completion of the course specifically to aspects of the instructional design, such as clear expectations and easy-to-follow course structure. When responding to the survey question, "Describe your level of satisfaction with the course. What do you believe influenced your satisfaction the most?" five students (20%) provided comments about the course design, praising components such as course structure, timing of assignments, neat instructions, and clear guidelines. Course activities that students perceive to be of value which require learners to challenge each other's opinions and work (such as peer review) may provide opportunities for students to exhibit teaching presence in the form of involvement and support. Redmond and Lock (2006) indicated that teaching presence is not confined to the instructor; everyone has a "role to play" (p. 270). Course collaborative activities which do not have a clear purpose will be underutilized by students, even if activities involve Web 2.0 technology (such as a social networking website). Course activities such as formative assessments and early non-graded peer or instructor review were perceived in a positive manner by the study participants.

The instructional design of online courses which include opportunities for non-graded formative assessment (such as review games, self-quizzes, peer review, and early instructor review) are of perceived benefit to students. The instructional design of course activities which include opportunities for collaborative work may serve to better engage and involve online students. When deciding to incorporate use of a new technology, verify that the technology enables activities related to course learning outcomes which are of perceived benefit to students. In a study of the causal relationships between social presence, teaching presence, and cognitive presence, Garrison et al. (2010) emphasized the key role that teaching presence plays in influencing student perceptions of social presence and cognitive presence.

How do community college students in an online course perceive and describe their educational experience in terms of cognitive presence? The findings demonstrated that the course activities which were deemed to be the most beneficial by interview participants included discussion board participation, formative assessment, instructor-created notes, and lab activities. The variety of the types of activities perceived as beneficial by participants exemplifies the impact of student individual characteristics and learning preferences. Most of the interview participants indicated that they learned more through independent study than from the instructor or from other students.

The instructional design aspect of teaching presence set the stage for student engagement with content by structuring activities and discussions. Each of the interview participants enrolled in courses with required discussion board participation mentioned engagement with content while preparing to post or reply on the discussion board. While most online learners are engaged by discussion board communication, the instructional design of an online course should include a variety of course activities and materials intended to meet the needs of learners with varied learning preferences and individual needs.

How do community college students in an online course perceive and describe their educational experience in terms of course satisfaction? The findings demonstrated that most (80%) of the participants were satisfied with their online course experience. Further, all of the interview participants enrolled in courses with required discussion board participation were satisfied with their online course experience and indicated that the communication and collaboration increased their satisfaction with the course. Close to one-third of the participants indicated the dual-faceted category of teaching presence (instructional design and instructor involvement/support) as a reason for their course satisfaction. Akyol and Garrison (2008) determined that teaching presence, social presence, and cognitive presence demonstrated a significant relationship with satisfaction. However, the most frequent contributor cited by survey participants for positive course satisfaction was related to individual learner characteristics such as self-efficacy, enjoyment of learning, self-improvement, convenience, and meeting expectations.

All participants in the study expected to successfully complete their online course. The top three reasons provided when participants predicted success were self-efficacy and determination, learner engagement with content, and instructional design. Each of the interview participants cited situational factors when providing a reason for enrolling in the online course. Advice provided by the interview participants to other online students emphasized dispositional factors: time management, responsibility, and staying on task. Participant responses for expected success, satisfaction with the course, and advice to other students reinforce the importance of individual learner characteristics/needs – the dispositional and situational factors as described by Cross (1992). While instructional design can provide opportunities for student engagement, dispositional and situational factors play a role in the satisfaction and success of online students.

The community college students who shared their perceptions about online courses in this study were a diverse group with varied individual needs, preferences, and long-term goals. Their perceptions reflected the interrelationship of communication/interaction, instructor involvement/support, instructional design, learner engagement with content, and satisfaction. Figure 1 presented a conceptual model of six student success factors (dispositional, situational, social, technological, institutional, and pedagogical) and the components of the COL framework. The majority of the participants in the study were satisfied with their online course experience and all expected to successfully complete their online course. The influence of intrinsic factors (dispositional and situational) and pedagogical factors were evident in the participant's perceptions. These self-efficacious online students had overcome or were transcending factors which may have presented barriers to them, such as technological factors, social factors, and pedagogical factors. Institutional factors were not mentioned by any of the study participants.

Limitations

As qualitative research with a limited sample size by design, a limitation of the study was that only the perceptions of students who chose to participate were included. It is of note that the participants all expected to successfully complete the online course in which they were enrolled. Another limitation was that due to student privacy issues, the actual grades of the participants were not captured so there is no corroboration that students who expected to be successful actually met their goal.

Recommendations for Practical Application

The findings from this study provide implications for practice and may be useful to instructional designers, community college faculty, other higher education faculty, and administrators. Recommendations for practical applications are listed below:

1. Communication and interaction with others through discussion board participation was a major source of engagement for the participants. It is recommended that course designers and instructors include mandatory, regular discussion board participation in online courses to provide for student interaction and to help alleviate/prevent the feelings of isolation and distance. It is further advised to require student participation on multiple days during the discussion to enhance the social interaction and communication.

2. The impact of instructor involvement and support was described as the most helpful or affirming point in the course by many of the participants. Prompt feedback and instructor-to-student communication was noted by the study participants and will help to alleviate feelings of isolation. It is recommended that instructors place a high priority on providing prompt feedback on assignments and responses to student e-mails.

3. While participants indicated positive perceptions of the use of virtual classroom sessions and online chat sessions, the interviewees reported little use of Facebook groups due to a lack of purpose. It is advised that instructional designers and instructors purposefully determine and/or create activities which support learning outcomes and are of perceivable benefit to students when choosing to incorporate new technologies or web applications such as Facebook in online courses.

4. All participants in the study expected to successfully complete their online course. The top reason provided when participants each predicted success was self-efficacy and determination. The individual characteristics, needs, and preferences of learners were evident throughout the survey and interview responses. The findings demonstrate the complexity of teaching community college students with varied dispositional and situational factors. It is recommended that instructors strive to be mindful of these individual differences and attempt to accommodate a spectrum of reasonable learner needs and situations.

5. Close to one-third of the participants indicated aspects of instructional design, such as clear expectations and easy-to-follow course structure, as a reason for their success, but when asked to describe the most beneficial course activity, the responses were varied. It is recommended that instructional designers be mindful of dispositional factors and individual learning preferences as they create courses with a variety of learning activities to serve students with various learning preferences. Classroom students have many opportunities for early formative feedback that are often lacking in an online course environment. In addition to the ubiquitous discussion board, course designers should consider incorporating collaborative peer review activities and formative assessment activities (such as interactive review games and self-quizzes.

Recommendations for Future Research

The study findings provide a basis for additional studies related to student perceptions, student success, and the Community of Inquiry model. Future research in this topic may include a larger study with a more varied sample of courses from different disciplines and a mixed methods study of a single course in which student self-reported satisfaction and predictions of success can be correlated with the actual course grade.

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