What Online Success Means to Online Instructors: A Grounded Theory Investigation

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The purpose of this research was to examine online instructors' perspectives on assessment practices within online environments. Nine online instructors from seven institutions were interviewed for this grounded theory qualitative research. Three main aspects emerged from the analysis of the interviews that were involved in online assessment practices: student learning, instructional design, and interaction. The findings from this study suggested that online learning environments are uniquely different from the traditional classrooms, especially the forced nature of discussions and greater emphasis on interactions. In addition, the findings indicated that unique characteristics of online environments along with instructors' epistemic belief have an impact on course design and delivery.

Keywords: online assessment, faculty perspectives, distance education, online learning

INTRODUCTION

Online education has been on the rise in the past decade or so (Allen & Seaman, 2006; 2010; 2014). While various strategies have been developed to enhance the design of online courses (e.g., Quality Matters, 2013), the assessment of online learning and online instruction remains a challenging issue in the field of online education.

Part of the challenge in assessing online learning and instruction is due to the unique characteristics of online learning. On one hand, the flexibility (anytime, anyplace, any pace) allows students more time to digest the learning materials and provides everybody the opportunity to ask questions (Petrides, 2002; Song, Singleton, Hill, & Koh, 2004), and the asynchronous communication may encourage deeper reflection and foster critical thinking (Garrison & Archer, 2007; Hrastinski, 2008; Stein et al., 2009). On the other hand, the written communication may cause issues such as misunderstanding (of postings) (Petrides, 2002; Song & Hill, 2009), and the asynchronous nature of online communication may cause feelings of isolation (Palloff & Pratt, 2010). Because of the unique characteristics of online learning, the pedagogical approaches that work in a traditional classroom may not work the same way as it is in an online environment (Reeves, 2003).

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The types of activities and interactions in an online environment are different from those of a traditional classroom. Online instructors no longer have the luxury of observing students' participation and understanding by way of their body languages and facial expressions as they typically would in a traditional classroom. Instead, they have to rely on students' online interaction (often via written communication) to make a decision on whether and how students are engaged in learning activities. Therefore, the assessments for online instruction cannot simply be transferred from the traditional classroom (Lockee et al, 2002; Sims et al, 2002).

Another part of the challenge with assessment for online education is the different aspects that need to be assessed: assessment of students' online learning, assessment of instructors' online teaching, and the assessment of online programs. The focus of the paper is not on the program level, but mainly examines the learning and teaching aspect. Learning is "a shared enterprise" that involves both the instructor and student (Song, Hannafin, & Hill, 2007, p.27). Instructors and students have their own perspectives on the success of a given online course. Research has documented that students often view the success of their online learning in terms of their satisfaction with their learning experience overall and their learning outcomes (e.g., Lim, Yoon, & Morris, 2006; Wang, Shannon, & Ross, 2013). However, there is lack of research to examine instructors' perspectives on their online assessment practices. An instructor's epistemic beliefs and prior teaching experiences impact how he or she designs and implements activities within the learning environment (Borrego, 2013; Hannafin & Hill, 2002), and how an instructor teaches would influence what and how a student learns (Arend, 2007; Bereiter, 2002). Therefore, it is important to understand online instructors' beliefs about online instruction, their prior experiences, and the impact that those beliefs and experiences have on their actual assessment practices in their online instructional practices. The purpose of this study was to examine online instructors' perspectives on assessment practices.

LITERATURE REVIEW

Airasian and Russell (2008) defined classroom assessment as the "process of collecting, synthesizing, and interpreting information to aid in classroom decision making" (p.2), which is often centered around student performance (Domingue & Ridley, 2001). Much of the research on the assessment of online course effectiveness is on how well students perform on tests and assignments. In fact, when comparing the effectiveness of online instruction to that of face-to-face instruction, student learning outcomes are often the variable that is used for comparison (Lim et al., 2006). Whether it is Russell's (2001) no significance difference study or the US Department of Education's (2010) modestly better performance online meta-analysis research, the variable that was used for comparison between online and face-to-face was student learning outcomes. In some studies (e.g., Shachar & Neumann, 2010), student's course grades are used as the indicator for student performance.

In addition to those comparison studies, research has investigated various techniques that online instructors utilized to assess student learning. For example, research has revealed a variety of techniques that range from traditional assessment techniques such as quizzes and exams (Gaytan & McEwen, 2007; Swan, 2001) to alternative assessment methods such as written assignments (Kearn, 2012; Swan, 2001), journals and minute papers (Vonderwell, 2004), portfolio and projects (Wijekumar, Ferguson, & Wagoner, 2006), online discussions (Arend, 2007), presentations (Arend, 2007), and fieldwork (Kearns, 2012). While traditional assessments such as quizzes and exams can help understand students' knowledge acquisition skills, some of the alternative assessment methods such as portfolio and field work could help evaluate students' ability to apply their

knowledge and skills. Journals and minute papers provide the learners with an opportunity to self-assess their learning (Vonderwell, 2004). Online discussions, problem-solving logs, discussion board content analysis can be utilized to understand the process of student learning (Wijekumar, Ferguson, & Wagoner, 2006).

However, student learning is only one aspect of a given learning environment. Often neglected in the research are the instructor's perspectives on online assessment practices. In fact, how an instructor assesses students' online learning not only impacts the content students spend time learning, but also influences the types of learning that will occur within the online environment (Arend, 2007). In other words, what much of the research considers as the core of online assessment (i.e., student performance) is deeply influenced by online instructors because they decide on what tests and assignments for the students to take and complete within a course.

What a student considers as a successful course may not be as successful according to the instructor, and vice versa. Song, Hannafin, and Hill (2007) discussed the differences between the instructor's and the student's epistemological beliefs regarding the learning and teaching approaches. For example, they explained that the inquiry based activities designed by instructors with constructivist beliefs may not work well with students with strong beliefs in behaviorism who expect lectures from the instructor.

Much of the practice in higher education regarding the effectiveness of courses is the end of semester student's evaluations of instruction (SEI). While SEI is important, it can only tell us the student's perspectives on the effectiveness of the courses. Research has indicated that student's and instructor's evaluation of teaching is different (Bosshardt & Watts, 2001). Therefore, it is important to understand the instructor's perspectives on the success of online courses. Ideally, developing a common ground between the student's perspectives and the instructor's perspectives would be helpful to guide the design for a successful online learning environment.

METHODOLOGY

This study adopted a grounded theory methodology. As Charmaz (2000) defined, "grounded theory methods consist of systematic inductive guidelines for collecting and analyzing data to build middle-range theoretical frameworks that explain the collected data" (p.509). The purpose of this research was to analyze different online instructors' perspectives on online assessment practices with the attempt to develop a framework for assessing the success of online courses, which fits well with the grounded theory research design principles

PARTICIPANTS AND CONTEXT

Nine online instructors from seven institutions participated in this study. Four of them were male and five of them were female participants. The participants' online teaching experiences range from five to twenty years. Seven participants have taught online courses at both graduate and undergraduate level, one has only taught online courses at the graduate level, and one has only taught online at the undergraduate level. All of the participants worked in an instructional technology program at the time of this research study. The types of online technologies that those participants utilized when delivering their online courses include: Blackboard, WebEx, Illuminate, Vocki, Animoto, Web 2.0 tools, audio; video; and Vocaroo.

DATA COLLECTION

One-on-one open-ended interviews were utilized as data collection method. Each interview was between 30 and 60 minutes long. The interview method is "a strong means

of directly discovering what respondents know, like, believe, and so forth" (Thorkildsen, 2005, p. 358). The open-ended nature of the interviews in this study further allows the researcher to "ask questions and follow hunches…about what to look for" (Charmaz, 2000, p.514). The interview process followed grounded theory research design principles where the researchers developed "analytic interpretations of their data to focus further data collection, which they use in turn to inform and refine their developing theoretical analyses" (Charmaz, 2000, p.509). All of the interviews began with the same question, "how do you evaluate the success of an online course?" Depending on how each participant responded to the first question, additional questions were asked for each participant to elaborate and expand his or her responses regarding details on their assessment practices. For example, after a few participants mentioned online interaction as an important component for students' online success, a question on online interaction was added to all of the following interviews.

DATA ANALYSIS

The data analysis followed Charmaz's (2000) strategies for grounded theory approach: 1) simultaneous collection and analysis; 2) comparative method; and 3) memo writing. Once transcribed, each the interview was analyzed as it was being collected. Codes and categories were identified through open coding and no preconceived concepts were used (Glaser, 1978, 1992). The constant comparative method was employed to compare data from different participants regarding their perspectives on online assessment practices. During open coding process, data were "broken down into discrete parts, closely examined, and compared for similarities and differences" (Strauss & Corbin, 1998, p. 102). In this research, the thoughts, ideas, and meanings contained in interviews were examined and coded through an open-coding process in order to bring out the similarities and differences among online. The researcher kept a memo during the data analysis process. Notes and reflections were recorded regarding each interview and they were used as guides and references for future interview data collection and analysis.

FINDINGS

Three main themes came out of the data analysis indicating that instructors' online assessment practices were: 1) grounded in their beliefs about teaching and learning; 2) context-driven; and 3) centered on student learning, course design, and interactions. Overall, the participants' online assessment practices were centered on student learning, course design, and interactions. When looking deep into the data, it appeared that the specific context of the learning environment (online vs. f2f, graduate vs. undergraduate courses, etc.) was an important consideration when the instructors were reflecting on and implementing assessment practices. In addition, the analysis of the data indicated that the different assessment practices from different online instructors had much to do with their beliefs about teaching and learning. This section will first present findings related to the participants' perspectives on online assessment practices. Then, discussion on how the context factor of the learning environment and instructors' beliefs impact on the instructors' online assessment practices.

ONLINE ASSESSMENT PRACTICE IS GROUNDED IN INSTRUCTOR'S BELIEFS

In addition to the context factor, the findings from the study indicated that instructor himself or herself would have an impact on how the course is designed and delivered. Specifically, the instructor's beliefs about teaching and learning, instructor's experiences, and instructor's qualities and qualifications play a role in the online course design and delivery. For example, one instructor strongly believed in student-centered learning and

she designed her courses with the target audience in mind: "when I initially designed this course, I think about what my students really want to learn. Is it important for me to have them write a paper? Know research about this area? Or is it about being able to apply what they are learning to their real-life? Again, this is also related to my target audience, are my students mostly master's students who are working or interested in working in classrooms? Or are they doctoral students who are more focused on the research itself?" In another example, the instructor believed "students' interaction is important, group work is important..." Therefore, he not only emphasized the importance of student interaction and group work in the online course design, but also included them as grading components in the online courses. Another instructor had a strong belief in higher order thinking skills such as creativity and he discussed in the interview the importance to include activities that would help evaluate student's creative thinking skills. One instructor shared that it is important to know students' background (e.g., you are from Idaho) and have connection with students; therefore, he used video technologies to show eye contact with the students and talked about things that were connected to student (e.g., he had been to Idaho).

Instructors' experiences would make a difference on the effectiveness of online learning assessment. As one instructor noted in the interview, it takes experience to "know" whether a student is engaged in online discussions or not: "from just reading their posts, I understand, oh this person is engaged. Oh this conversation is thought provoking. Or this is just superficial…I guess experience probably makes a difference, but I think everyone, every instructor, if they take time to read the posts, they should be able to tell."

Sometimes the instructors' experiences or background could translate into their teaching qualities and qualifications to students, which may impact student learning experiences in the online class. For example, one instructor said in the interview, "I have both the professional experience and a life experience so diverse, that I truly believe that I can offer a whole lot, in the representation of the content and it was sort of a theoretical material, but it is based in sort of a practice for learning and teaching of adults, and I thought my own passionate interest and my experience in the topic added a component to this … personal wisdom and credibility on the topic; students feel that, no matter how they take the content, they feel whether the instructor is credible in the field they taught."

ASSESSMENT PRACTICE IS CONTEXT-DRIVEN

The findings from the data analysis suggested that online instructors' assessment practices were context-driven. There were three elements that seemed to influence how those instructors evaluated the success of an online course: 1) unique characteristics of online learning; 2) types of courses; and 3) level of courses.

Participants reported that online learning was uniquely different from the traditional classroom learning. The unique characteristics of online environments are: written communication, forced participation/discussion, easier to assess online participation, greater emphasis on interaction and communication, more time-consuming, and greater access to resources. All of the characteristics are interconnected with each other. "The only way you know whether a student participates in discussions is through their postings," as one participant pointed out during the interview. This feature of written communication as a predominant way of communication within online environments leads to the "forced" nature of student online discussion. The term "forced" is a word that a few participants used when describing the required online discussions with specific due dates for postings. Seven out of the nine participants mentioned this feature as unique in the online environment. For example, one instructor asked the students to post the initial responses by Wednesdays and peer responses by Fridays in his online class. Another instructor mentioned that students in his class were required to comment on other students' blogs. Because of the "forced" nature of online discussions, it is easier to assess students'

participation in online courses. As one instructor said, "students have to leave some marks somewhere" in online classes "where in face to face, you wouldn't know if students would just sit there and doze off."

Another unique characteristic of online environments is the greater emphasis on interaction and communication. Every instructor in this study mentioned interaction and communication as important aspects of online environments. For example, one instructor said during the interview, "the communications need to be frequent and detailed." Another instructor shared, "social interaction is important because it makes students feel that they are part of the community." In addition, several instructors mentioned that it took more time to prepare and plan for online courses, and it took more time to facilitate the online discussions ("because you need to read every student's postings"). However, online technologies do provide the opportunity to have access to a larger audience. For example, one instructor mentioned that a famous scholar joined his students' blog discussions on a topic for which this expert is well known.

Instructors in the study also reported that both types of courses (e.g., research class vs. theory class) and levels of courses (e.g., undergraduate v. graduate) influence how an online course is designed and they also decide whether it is appropriate to teach those courses online. For example, one instructor said that it would be difficult to teach a research class fully online because "the students want more face-to-face reassurance and maybe want a little more individual time with a faculty member." Another instructor said, "if you were talking about Math, it would be much easier, … one method is standardized testing…" One instructor reported, "when you are thinking about group projects and in terms of giving them options, and that varies in the graduate and the undergraduate level….. Graduate students seem to have an easier time participating in discussion."

ONLINE INSTRUCTORS' ASSESSMENT PRACTICES

Upon open coding and constant comparison analysis of the interview data, it appeared that the online instructors' assessment practices were centered on student learning, course design, and interactions.

Assessing Student Learning

All instructors in this study considered student learning or student outcome as a way to assess the success of an online course. When elaborating on how they assessed student learning in online courses, the instructors pointed out that it's important the course objectives were met. As one instructor said "regardless of the format, you want to see the goals met," and another shared a similar thought that it is important to know "students have learned what they are supposed to learn." In addition, different levels of learning (e.g., higher order thinking, problem solving) should be assessed. In regards to the specific ways to assess student learning outcome, the instructors have shared that they have used various assignments and projects to assess students' learning outcome such as final paper, presentations, blogs, reflection papers, research papers, and others.

Assessing Instructional Design

Seven out of the nine instructors explicitly mentioned instructional design as an important aspect for online assessment. For example, one instructor said, "the course itself is truly reflecting the good instructional design that the assignments align with the course objectives." This instructor further elaborated, "if the design of the assignment aligns with the course objective…, then looking at the student outcome wouldn't be that hard to match." Another instructor shared, "the effectiveness [of an online course] starts from the course design itself. Using any basic instructional design model, you would have some sort of goals and objectives that are measureable from the start and if the students achieving

them." One of the instructors discussed the use of the universal design for learning (UDL) principles in online course design. She said that online course design should follow UDL principles to present the content in multiple ways and to allow multiple ways of expression for the students.

Assessing Interactions

All instructors pointed out that interaction was an important element to be considered when assessing online courses. They discussed the importance of social interaction in student's learning as well as the role of the instructor in the interaction and communication within the online environments. The instructors have expressed that students "learn so much from their peers [through online discussions]," they "have a more thoughtful opportunity to answer questions, and get feedback, and then get more feedback, and get more answers "when interacting with peers and the faculty in online courses because "the online environment can be richer or more content-thorough discussions than you might find in a two and a half hour face to face class that meets once a week." Some instructors shared the struggle to find the balance in their involvement in the online discussions. For example, one instructor said, "I don't want to be too involved, but I don't want to do too uninvolved." He further explained, "if you are too involved too early or you start making statements too early in the discussion… I assume they will start to just mimic what I say so they kind of appeal the teacher." Another instructor shared her struggle with her involvement in the online discussions, "whenever I answered somebody's post that thread started to stop at my point." However, the same instructor said that when she didn't "put in too much input there," the students would say in the course evaluations, "they seemed to learn so much from their colleagues, but not so much from the instructor." It seems that the students, on one hand, would want the instructor to be involved in the discussions, but on the other hand, too much involvement from the instructor might hinder the fluid discussions among students.

DISCUSSIONS AND CONCLUSIONS

Both the context factor and instructor's beliefs component have emerged from the literature as significant elements for consideration for both course design and evaluations. Researchers had pointed out long time ago that instructor's epistemic beliefs would influence student-instructor interactions and instructional planning (Gibson & Dembo, 1984), and decide on everyday classroom teaching practices (Flores, 2001; Freeman & Porter, 1989). In fact, Song, Hannafin, and Hill (2007), in their reconciliation model, had discussed much of those factors such as beliefs about teaching and learning that the participants shared in this research and how those factors might impact the learning and teaching processes within a given environment in general.

Recently, when examining faculty's perspectives on online instruction and competencies across three countries, Barbera, Layne, and Gunawardena's (2014) found both the context factor and faculty beliefs to be critical components that influence online course design. Hora (2014) conducted a case study that examined undergraduate Math and Science faculty beliefs about student learning and their role in instructional decision-making. When doing the in-depth comparison of two instructor's decision-making processes in relation to their beliefs, Hora found that not only faculty beliefs impacted their instructional practices, but those beliefs interact with other factors such as the context of the learning environment. Hora also recognized Eley's (2006) finding that the subject matter played a role in how instructors would plan and teach their courses, which is echoed in the reported research where instructors believed the types of courses (research courses

vs. theory courses) to be an important context factor that influence their instructional practices in the online environments.

The focus on students' learning outcome that was identified in this study is consistent with the trend in the literature that moves assessment practices from content-based approach to learning-centered approach (Jil-Jaurena & Softic, 2016). The specific assessment techniques that participants shared in this study echoed what has been found in the literature such as journals (Arend, 2007; Vonderwell, 2004), portfolio and projects (Gaytan & McEwen, 2007; Wijekumar, Ferguson, & Wagoner, 2006), online discussions (Arend, 2007; Kearns, 2012; Swan, 2001), presentations (Arend, 2007; Kearns, 2012), and others. What is significant about the findings from this research is the comprehensive perspective that looks at the context of the learning environments, instructor's beliefs about teaching and learning, and the specific assessment techniques. The interactive nature of those three major components that are involved in assessing online learning and instruction adds another layer of significance to the literature regarding online assessment. Specifically, the unique characteristics of online environments along with the instructor's beliefs about student learning influence the specific design of an online course. The design of the course then decides on the types of interactions that will take place in an online environment, which in turn would influence student learning (Figure 1).
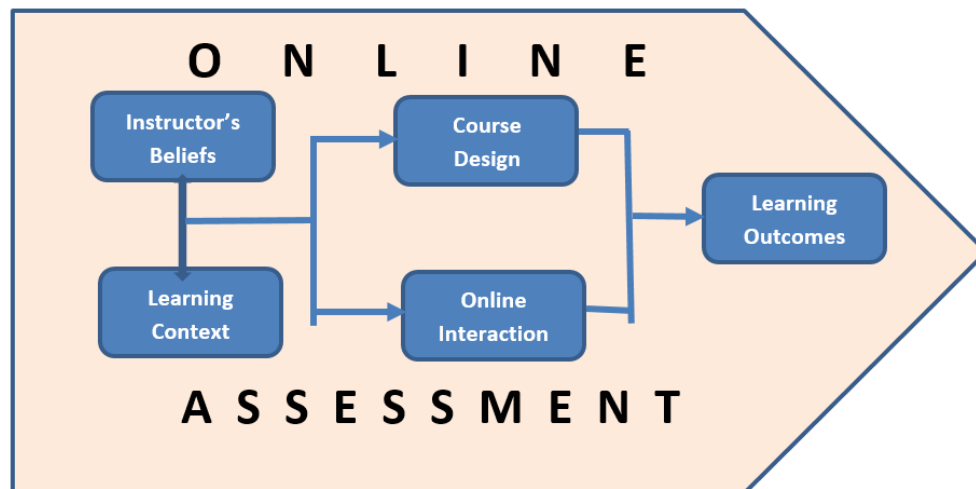

Figure 1: An assessment framework for online courses

While the online learning assessment framework (Figure 1) that resulted from the study is helpful to understanding instructor's online assessment practices, challenges remain in actually implementing some of those aspects in practice. For example, instructors in this study reported several challenges related to online course delivery and learning assessment that are worth noting: 1) challenges to understand student's engagement in online discussions; 2) challenges to design and evaluate higher order thinking related activities; and 3) online teaching and evaluation efficiency. Future research investigating those challenging issues would be helpful in developing guidelines for online instructors when they design and evaluate their online courses.

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