Effective pedagogical practices for online teaching: Perception of experienced instructors
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Abstract
Institutions have focused on providing faculty with technological training to enhance their online teaching, but many online instructors would like to learn more effective pedagogical practices. This phenomenological study determines what experienced, award-winning South Dakota e-learning instructors perceive to be effective pedagogical practices. This study identified effective pedagogical practices for online teaching that are reflective of theories and practices referenced in the college teaching literature.

1. Introduction
Institutions have focused on providing faculty with technological training to enhance their online teaching, but many who teach online say they lack pedagogical and instructional support (Morris & Finnegan, 2008–2009; Oomen-Early & Murphy, 2009). More studies are needed on effective pedagogical practices for online teaching, particularly studies that distinguish between novice and more experienced faculty members (Hogan & McKnight, 2007; Mazzolini & Maddison, 2007; Oomen-Early & Murphy, 2009, Smith, Heindel, & Torres-Ayala, 2008). The purpose of this phenomenological study was to determine what experienced, award-winning South Dakota e-learning instructors perceive to be effective pedagogical practices.

1.1. Pedagogical theories and principles
Three pedagogical theories informed this study: andragogy, constructivism, and transformational learning. Knowles (1992) defined andragogy as self-directed learning and identified the following set of four necessary competencies for self-directed learning: skill in diagnosis of learning needs, formulation of learning goals, identification of human and material resources for learning, and evaluation of learning outcomes. Fidishun (2000) recommended that the principles of andragogy be used in the design of online classes to facilitate “flexibility and the ability of the learners to move through lessons anytime, anywhere, and at their own pace” (p. 1). Another theory that can inform online teaching is constructivism. A key principle of the constructivist theory is the inclusion of a variety of learning perspectives that encourage students to be receptive to other perspectives and experiences and to explore areas that are important to them through active learning and assessment (Conway, 2003; Merriam & Caffarella, 1999). Underhill (2006) recognized that “[T]he pedagogy of constructivism and in particular socio-constructivism is underpinning much of the online learning and teaching developments currently being developed” (p. 165). The third theory is transformative learning, which is the capacity for critical thinking and evaluating basic assumptions and meaning-making frameworks. Mezirow (2000) described how reflective discourse and vigorous dialogue “allows for intense intellectual relationships, where faculty can be attuned precisely to students’ thinking and development” (p. 96). The flexibility of online asynchronous discussions can help to engage the online student and “allows time for research and reflection and reducing participation anxiety for shy students” (Baglione & Nastanski, 2007, p. 140).

1.2. Literature on effective pedagogical practices for online teaching
Chickering and Gamson (1987) conducted a meta-analysis of the research on effective teaching practices and identified seven principles for good practice in undergraduate education. These seven principles have been identified as effective pedagogical practices for online teaching as well (Brew, 2008; Morris & Finnegan, 2008–2009; Palloff & Pratt, 2005; Young, Cantrell, & Shaw, 2001).

1. Encourage contacts between students and faculty in and out of classes.
2. Learning is enhanced when it is more like a team effort than a solo race.
3. Active learning is encouraged in classes that use structured exercises, challenging discussions, team projects, and peer critiques.

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4. Students need appropriate and timely feedback on their performance to benefit from courses.
5. Learning to use one’s time well is critical for students and professionals alike.
6. Communicate higher expectations.
7. Provide a diverse delivery system.

Researchers have also noticed that the effective instructor has evolved from the role of teacher to being a facilitator, which has influenced pedagogical practices both in traditional face-to-face classes as well as in online classes. Alison King (1993), professor of education at California State University, first coined the phrase “from sage on the stage to guide on the side” to describe this development. The teacher who wants to become a facilitator of learning requires a different set of pedagogical skills that focus on helping students collaborate with each other in order to develop personal understanding of course content, linking students to learning resources, and encouraging student initiative (Knowlton, 2000; Knowles, Holton, & Swanson, R., 2005). Palloff and Pratt (2005) stressed the importance of “allowing students the opportunity to work together to create knowledge and meaning, rather than providing facts and information that they memorize and retain in some fashion. The former provides the opportunity for the development of critical thinking skills, whereas the latter may not” (p. 126).

Morris and Finnegan (2008–2009) used Berge’s (1995) taxonomy to evaluate different roles novices and experienced faculty used in online teaching: a social role, a pedagogical role, a management role, and a technological role. Novice teachers predominately used the management role, giving directions on assignments and referrals for technical or tutorial assistance. Students reported a need to be “told that time on task matters, both where they go in a course and how often, matters” (Morris & Finnegan, 2008–2009, p.57). Students appreciate the structure and organization that online instructors provide to facilitate online discussions by providing topic headings for specific assignments and discussions (Brew, 2008). Effective online teachers make learning resources and instructional activities available to students instead of just providing instruction (Carr-Chellman & Ducastel, 2001; Palloff & Pratt, 2003).

In comparison to the novice instructors, more experienced instructors used all four of Berge’s roles to engage students and increase their success in teaching the course (Morris & Finnegan, 2008–2009). They performed the social role by welcoming students and encouraging them to share photos and experiences. They also demonstrated understanding and flexibility in recognizing the challenges that online students may encounter. In another study, online students reported that effective online teachers strive to establish relationships and will do whatever is necessary to make the online class a successful learning environment (Young et al., 2001). Experienced instructors focused on their pedagogical roles, providing prompt course-related feedback and encouraging students to engage in the course content and with each other. Morris and Finnegan (2008–2009) suggested pairing novice faculty with experienced instructors so the novices could learn how to more effectively use pedagogical and social practices in their online teaching.

Instructors often perceive that taking on pedagogical and social roles requires more time and creates more stress. The expectation of being constantly online and interacting with students can lead to burnout. In a study exploring the burnout among online instructors, participants reported a high degree of depersonalization and low sense of personal accomplishment when teaching online courses (Hogan & McKnight, 2007). Instructors also perceived that it takes more time to teach online. Interestingly, studies that compared the amount of time instructors spend teaching online and teaching in the classroom discovered there was no difference (Hislop & Ellis, 2004). Hislop and Ellis (2004) found that when instructors teach an online course, their time is “more fragmented in nature” and occurs over more days in comparison to those in a face-to-face class where the instructor interacts and responds to students’ questions within the boundaries of the class period (p. 27).

2. Methods

One-on-one interviews were conducted with experienced, award-winning South Dakota e-learning instructors to discover what they perceive to be effective pedagogical practices for online teaching. The participants in this study were recipients of the South Dakota Board of Regents’ E-Learning Award. They were honored for their online teaching skills through a nomination process administered by the South Dakota Board of Regents. There were fifteen participants or co-researchers, as Moustakas (1994) would have called them, in this research study. There were nine female and six male participants. Participants were people in their 20s to those in their 60s.

Each interview was tape recorded; in addition, the researcher took notes to record non-audible responses. Moustakas (1994) suggested that interviewers using phenomenological research methods should ask participants these two general questions:

- What have you experienced in terms of the phenomenon?
- What contexts of situations have typically influenced or affected your experience of the phenomenon?

The researcher travelled throughout South Dakota to meet with interviewees at a private location of their choice. The interview process was conducted according to the processes and guidelines outlined by Creswell (2007) and Hycner (1985). For phenomenological studies, Creswell recommended that interviews last at least an hour, and each interview in this study lasted from 1 to 2 h. Each interview was relatively semi-structured, audio recorded, and transcribed word-for-word by the researcher. The identity of the participants remained confidential, and all audio tapes were destroyed after transcription had been completed. Participants were identified only through the use of pseudonyms to protect their identity.

2.1. Data analysis

Moustakas (1994) stated that “the phenomenal experience becomes increasingly clarified and expanded in meaning as the phenomenon is considered and reconsidered in reflective processes” (p. 50). After transcribing the interviews, the interview data was analyzed for “significant statements, sentences, or quotes that provide an understanding of how the participants experienced the phenomenon” (Creswell, 2007, p. 61). Moustakas defined this data analysis process as “horizontalization”. He advised the researcher to list each relevant expression, also known as invariant constituents. The researcher asked two questions to establish these invariant constituents.

- Did the expression relate to an element that is “necessary and sufficient” that will help to understand the phenomenon?
- Is it possible to label this expression?

If the expression could be labeled, it was considered to be “a horizon of the experience” (Moustakas, p. 121). If the expression did not meet these criteria, the data was eliminated. To help validate this process, the relevant expressions were checked by asking two additional questions:

- Were the expressions completely and clearly articulated in the complete transcript?
- Were the expressions compatible and clearly communicated?

If the answers were no, the statements were eliminated. Clusters of meaning, trends, and themes were reviewed, analyzed, and discussed. Significant statements and themes were used to write a
thick description of what the participants experienced, which Creswell (2007) described as textural and structural descriptions. From these textural and structural descriptions, the researcher wrote a composite description that captured the essence of the common experiences of the participants related to the best practices for teaching online university classes.

The last step in the data analysis process was to establish the essence of the phenomenon through an amalgamated description that Creswell described as the essential invariant structure. This process focused on the participants' common experiences related to the phenomenon of best practices for online teaching. Verification of the final report was conducted by individuals involved in the study in order to establish the credibility of the findings (Yin, 2003).

3. Findings

Eight effective pedagogical practices for effective online teaching emerged from the analysis of the interviews.

3.1. Fostering relationships

Instructors stressed the importance of fostering relationships as an effective practice for online teaching. Instructors described their empathy for students, their passion for teaching, and their strong desire to help students be successful at the university level. A professor mentioned, “I look forward to every e-mail. It’s like, here’s another opportunity. I don’t ever look at ‘em as a problem. You know, it’s like, wow, so what can I do here to help this person out a little bit?”

3.2. Engagement

Instructors identified engagement as an effective practice for online teaching. To accomplish this, they use e-mails, class discussion boards for posting required discussion question responses and sharing student biographies and student group projects. One participant stated, “I think the entire online course should be focused around discussion. The output that they produce in terms of thought, in terms of their written assignments is just so much better than I ever got in on-campus classes, so much better.” Several instructors mentioned the benefits of having the time to research answers to challenging student questions to be able to give students the correct answers without having to say, “I don’t know.”

3.3. Timeliness

Faculty members identified timeliness as an effective practice for teaching online. They met this criterion by returning graded assignments promptly, frequently checking e-mails and responding to questions, and assessing the volume of time required for teaching online classes. One participant acknowledged that “you have to be willing to get on that site every single day, at a minimum, probably twice a day ideally, to answer those students’ e-mails.”

3.4. Communication

Good communication is an essential practice for effective online teaching. Instructors identified several important differences between the way they communicate when doing face-to-face teaching and online teaching. Instructors can also foster communication by giving timely feedback on completed assignments, responding to written questions, communicating requirements, and informing students when they will be away.

Tone of voice, body language, and other non-verbal communication clues are typically absent in the online classroom environment. Whenever instructors are communicating through e-mail and text, they have to be very attentive to their communication styles and the words they use. One of the participants explained that “you have to have excellent communication with them, and you have to demonstrate that you’re willing to communicate with them and that you care about them when you’re sending e-mails back and forth, and you have to be careful with your wording so that they don’t take anything the wrong way.”

3.5. Organization

Instructors emphasized that organization is an important practice for online teachers. It is important to students to be able to navigate the online university course Web site and find out what they are going to be required to do to be successful in their online classes. An instructor can provide effective organization for students by utilizing the course management software tools, providing links to Web sites and other supplemental course materials, and having all course materials available to students by the first day of class. One professor explained that “many of them [students] are adult learners, and they want to know what’s going to be expected of them all the way down the road. They don’t want any big surprises.”

3.6. Technology

Instructors advocated the effective utilization of technology as part of effective practices for both online and face-to-face courses. They promoted the importance of personally developing technical competency in the core areas being taught and innovations in computer hardware and software programs. Instructors reported using a wide variety of technological tools to deliver course materials and to assist with student learning. One instructor stated, “I think we’re seeing a lot more of even the traditional types of classes utilizing the online technology. Every in-class course that I’ve taught, I still use WebCT as a supplement. I’ll put up supplemental notes and I’ll do quizzes on WebCT, those types of things.”

3.7. Flexibility

Instructors advocated being flexible as an effective practice for online teaching by keeping an open mind and having the ability to adapt. It is also important to have patience in the online university environment. The following problems may test the patience of both faculty and students: system delays, online learning system platform accessibility, e-mail reliability, and being able to work through communicating using only the written medium. As one of the instructors mentioned, “You have to maintain that flexibility. You have to have a lot of patience, which I have learned because, yes, we are in a world where technology is widely used in teaching, my experience has been [that] it is not perfect.”

3.8. High expectations

Faculty members identified high expectations as an important trait of effective online teachers. Instructors emphasized the importance of defining course goals and learning objectives and clearly establishing these expectations at the beginning and throughout the online course. A participant reported, “Through the syllabus that I’m giving to each student, I try to make it as specific as possible, all the learning objectives, the goals, what’s expected of them, what they can expect of me.” Another participant’s comments supported the need to communicate high expectations: “You can’t let them figure it out on their own. You have to tell them. You shape expectations right away. Students are happy, and they do better.”
4. Discussion and recommendations

Experienced online instructors who participated in this study identified effective pedagogical practices for online teaching that are reflective of theories and practices referenced in the college teaching literature (Chickering & Gamson, 1987; Knowles, 1992; Merriam & Caffarella, 1999; Mezirow, 2000). The principles of andragogy could be used to design an online course to meet the needs of self-directed learners who want flexibility but with the structure of a well-organized online course. The principles of constructivism (Merriam & Caffarella, 1999) and transformative learning (Mezirow, 2000) could inform instructors on how to intentionally structure and facilitate their courses to foster relationships and engage students in the learning process.

Exercising Chickering and Gamson’s (1987) principles of providing students with appropriate and timely feedback on their performance and set high expectations in advance could help instructors to facilitate their courses with less stress (Hogan & McKnight, 2007) and in a timely manner for both students and instructors (Hislop & Ellis, 2004). The experienced instructors in this study emphasized the importance of defining course goals and learning objectives and clearly establishing their expectations at the beginning and throughout the online course. Faculty members must explain that they expect students to take the initiative to log into class and complete assignments and posted discussions within a given time.

Instructors in this study described the need for flexibility and technological skills in dealing with system delays, online learning system platform accessibility, e-mail reliability, and being able to work through communicating with students using only the written medium. These are all issues that may test the patience of both faculty and students. Adapting to new technological tools, including state-of-the-art software and innovative hardware, is important to successful online teaching. Revisions and improvements to online learning systems can be expected to continue as online teaching evolves. The challenge for instructors will be to continue to integrate effective pedagogical practices as these technological tools evolve.

University administrators need to consider providing more pedagogical training and support to instructors who teach online. As one of the participants mentioned, “The majority of professors at the college level have never taken a course in teaching. Most have never taken a course in education of any kind.” Encouraging networking online teachers to reduce the sense of depersonalization and burnout (Hogan & McKnight, 2007) among online instructors. As a participant in this study noted, “We should have brownbag lunches or something to assist someone who’s just coming in. I think that would be nice. It’s something at this point. We could have a formalized mentoring program, which would be nice for someone who’s been doing it for a while to assist someone who’s just coming in. I think that would be nice. It’s something we’re probably lacking.”

Ooman-Early and Murphy (2009) advocated institutions moving “beyond the technical nuts and bolts” and providing faculty with more opportunity for theoretical and pedagogical foundations of e-learning, “which differs from the traditional, didactic thinking of the Socratic Method” (p. 236). More research like that performed for this study is needed to continue to develop an effective pedagogical foundation for online teaching.

References