Pearson Efficacy & Research

Toward an Understanding of Training to Teach Online:
A Review of the Literature

Contents

Introduction

The rise of online education has brought with it many educational benefits, such as increased access, flexibility, differentiation of learning, and the expansion of course offerings. Many researchers have postulated that the majority of traditional post-secondary institutions will prove unviable in the next ten to fifteen years if they don't adopt some form of distance education. The higher education community has begun to realize that online learning is no longer an option, rather it is table stakes if they hope to remain competitive. The paradigm shift in educational opportunity is expected to transform higher education, but the urgency institutions are feeling to move their courses online is bringing with it some unforeseen consequences, including underprepared instructors.

The knowledge, skills, and abilities required to deliver high quality online courses expand beyond those needed to teach in a brick and mortar classroom. When teachers simply transfer a course blueprint and teaching strategies from their face-to-face class online, they often fall short of the high quality they realized in their traditional classroom. However, if faculty engage in high quality professional development that provides training on translating course content, identifying appropriate resources, and implementing effective online pedagogy – and they implement the learned strategies, instructors may be able to effectively expand access to higher education by delivering rigorous courses to learners removed by time and geography.

Distance education is not new to higher education, rather it is woven into the historical context of the field. Mainstream online learning offerings, however, have seen a dramatic increase in the past 10-20 years, globally. Due to the relatively recent adoption of this mode of delivery there is little empirical research on the inputs and outcomes of learning in an online environment. One specific area that is currently under-researched is the importance of training faculty to instruct in this new type of environment, and whether the skills and best practices used to teach in a traditional classroom will translate online. However, available research indicates that because the modes of learning are so different, teachers who instruct online require additional pedagogical training.

One of Pearson Managed Services' identified areas of growth is online programs. In order to ensure that we are supporting our partnering universities as they develop and implement such programs, Pearson should have a sound understanding of the skills and best practices required to train instructors in an online environment. This review presents a synthesis of the literature discussing the differences between learning in a traditional classroom and learning online, important strategies for instructing in an online environment, and best practices for training faculty to teach online. The inferences drawn from this synthesis will inform our current university partnerships and will help develop a model for future collaborations.

The Evolving Definition of Online Learning

Online education is currently defined as; "Education that uses one or more technologies to deliver instruction to students who are separated from the instructor and to support regular and substantive interaction between the students and the instructor synchronously or asynchronously" (IPEDS, 2015). In the past fifteen years online learning has rapidly emerged as a mainstream alternative to traditional face-to-face higher education. The concept of distance education, however, has been present since long before communications technologies were widespread. As a result, the definition of 'distance learning' has evolved over time (Keegan, 1996; Nipper, 1989). One of the reasons that research around online learning is so complex is because the field has yet to agree on shared definitions of distance learning, eLearning, and online learning (Moore, Dickson-Deane, & Galyen, 2011).

Distance Learning

At its origin, distance learning was grounded in paper correspondence (Nipper, 1989; Dede, 1996 p.1). Technological communication was not introduced into the working definition of distance learning until the 1970's (Nipper, 1989). Distance learning then included some form of mechanical or electronic communication, which replaced face-to-face relations. It was at this point that regular teacher-student interaction was common as well as frequent student-student interaction, and a working definition of eLearning was established (Keegan, 1996).

eLearning

In the early 21st Century, eLearning emerged as distinct from distance learning. The explosion of media-rich internet content had made widespread eLearning an affordable and accessible option. Bloomeyer (2002) noted that the promoted use of eLearning for training both on college campuses and in industry made it necessary to revise the learned definition of distance education. Smart & Cappel (2006) note that eLearning became known as instruction that was delivered electronically via the Internet, intranet, or multimedia platforms. There is debate in the literature about what technologies and what level of interaction between teacher and learner are required for a mode to be considered eLearning.

In the evolution of the definition of online learning, the transition from eLearning to online learning has been the most vague. The clearest variance in the literature has been that online learning has been defined as "wholly" online (Oblinger & Oblinger, 2005) as opposed to referencing any type of technology (Lowenthal,

Wilson, & Parrish, 2009). Unlike eLearning, in which there is still a debate about how much interaction between student and instructor takes place online, a theme in the definition of online learning is that 100% of the learning takes place online. The majority of the articles referenced indicated that the authors believed that online learning is a newer version of eLearning, that there is some relationship between eLearning and online learning, and that there was not clarity in the distinction (Benson, 2002).

Online Learning

The present study defines online learning using a synthesis of the current definitions (derived from research between 2014 and 2015): online learning is learning that is a formal activity delivered wholly through the internet, with some support from supplemental technology; it occurs when teachers and students are separated by geographic distance or by time (Allen & Seaman, 2014; National Center for Education Statistics, 2015; Online Learning Consortium, 2015).

Face-to-Face versus Online Instruction

Instructors are an integral component of teaching and learning in all learning environments; they often develop the course, maintain structure and order, motivate learners, encourage participation and convey knowledge. Researchers suggest that all tasks associated with effectively teaching a course can prove challenging, however when the physical nature of a classroom is removed, unique challenges are introduced (Horspool & Lange, 2012; Mayne & Wu, 2011; Young & Duncan, 2014). Delfino et al. (2007) contend that an individual may be a veteran teacher in a face-to-face classroom, however whether an individual has delivered a traditional course effectively in the past is not predictive of their ability to effectively teach online. More recently, Rovai & Downey (2010) presented ways in which teaching online is different than teaching face-to-face.

- More upfront planning and preparation are needed to teach online and therefore it requires a greater investment in time;

- Students expect teachers to be more available and outside of regular hours;

- Interactions between teachers and students as well as students and students is very different online and discussion requires a specific type of facilitation;

- Assessment is complex and teachers require specialized assessment, technology, and time management skills to effectively teach an online course.

The differences outlined by Rovai & Downey (2010) are largely representative of the literature in the field. After a comprehensive synthesis of the research, I have coded differences between teaching in a face-to-face environment and teaching in an online environment into four categories: engagement, resources, assessment & accountability, and supports (Ellis & Phelps, 2000; Levy, 2003; Rovai & Downey, 2010).

Engagement

Research suggests that student engagement is one of the most predictive indicators of postsecondary success beyond prior academic achievement (Kuh, Kinzie, Buckley, Bridges, Hayek, 2006). There are generally three types of interaction in the classroom that promote engagement: students interacting with students, students interacting with the instructor, and students interacting with the content (Lundberg, 2014). Engaging students in a virtual classroom can present additional complexities particularly because a fourth dimension of interaction to promote engagement is introduced; student interaction with technology. Additionally, some researchers suggest that in an online environment students have a predisposition to disengagement because they perceive an online course to be less rigorous than a face-to-face course (Aslanian and Clinefelter 2013; Public Agenda 2013). Instructors therefore, begin the course having to spend a more significant amount of time engaging students.

One of the ways that students engage with other students is by developing a sense of community among one another. Community development in online courses is more challenging than in face-to-face courses. Instructors in an online classroom must work to develop a sense of community with students who are separated by geography and in many cases by time. Students in an online environment are not as likely as students in a traditional classroom to organically develop relationships with their peers when they are separated by geography and in many cases by time. Given that research has demonstrated a positive relationship between online students' perception of being part of a community of learners and important learner outcomes (Harasim, 2002; Palloff & Pratt, 1999), online instructors have to create opportunities specifically focused on developing a sense of community that may not be necessary in face-to-face classrooms.

Students often engage with instructors by developing informal relationships. However, in an online environment, it is difficult for instructors to share emotions and develop relationships. Zembylas & Vrasidas (2007) note that in a face-to-face environment, a teacher can informally assess his or her participants by observing facial expressions, body language, and gestures. In an online environment, however, these non-verbal cues do not exist and therefore a teacher must be

trained to properly understand cues using non-traditional methods. Youngblood et al. (2001) furthered this contention by stating that providing nonverbal cues is stripped from an online instructor. That is, he or she is unable to speak through body language, gestures, facial expressions, or even communicate tone verbally. Neither teachers nor participants can project thoughts through their tones (Youngblood et al., 2001). Due to the lack of verbal cues and visible body language, informal personal engagement between faculty and participants may be more challenging to develop.

Each of these characteristics is new and different to individuals who have taught in a face-to-face program and indicate that instructors will have to modify their teaching styles to be effective (Delfino and Persico, 2007). These findings are consistent with those by Vonderwell, Liang, and Alderman (2007) who, through their case study, found that online learning tools, although extremely beneficial to online learning must be understood by teachers before they will prove effective. The authors stated,

> *Educators are faced with the question of understanding the pedagogical characteristics of online learning and asynchronous communication tools to best serve students."*

When an instructor first offers his or her course online, it may be a student's first online course, so students may struggle to engage with the content. Researchers suggest that one of the advantages of teaching in an online environment is the ability to use more varied types of pedagogy, however the challenge can be understanding which types of pedagogy are effective in that particular class. In a traditional classroom an instructor can use non-verbal cues from students to gauge whether the pedagogy being implemented is disengaging to one or more students. In an online environment, the inability to observe student reactions makes this type of assessment difficult (Godnik, 2006).

Because it is a dimension of interaction that a new online instructor has not experienced before, supporting student engagement with technology may prove challenging. Students' success in the course is dependent on students being able to navigate through modules. If students are unable to effectively engage in the necessary technology they are likely to disengage from course participation, be unable to complete assignments or assessments, and possibly drop out from the course. Instructors transitioning from teaching in a face-to-face course to an online course have to learn best practices for supporting student engagement with technology.

Content & Resources

When instructors transition to an online environment there will be substantial differences between the content, resources, and pedagogy that were effective in the traditional classroom and those that will be used in an online classroom. As teachers transition online, they will have to spend a significant amount of time designing learning experiences. To facilitate a smooth transition between modes of instruction, teachers should consider all components of their course and evaluate whether they will translate to an online environment. Some resources, such as paper textbooks, may not be sufficient as standalone resources and supplemental digitals will have to be implemented. In other cases, paper textbooks in their current form may not translate at all and instructors will move to completely digital resources. That is, full sections or chapters will not be able to post directly to a digital format. Depending on resources used, some courses will have to be completely redesigned to promote student engagement and maintain a high level of rigor and quality. Research suggests that simply transferring face-to-face lessons and resources online does not take full advantage of the opportunities available in a virtual space (Ellis & Phelps, 2000). Rather, if technology is utilized in a way that takes advantage of the virtual space it can create high quality learning experiences for students. To illustrate this point the SAMR model, popularized by Dr. Ruben Puentedura, can be used. The SAMR model is comprised of four levels that are often related to a taxonomy. The first two levels, substitution (where technology acts as a direct tool substitute, with no functional change) and augmentation (where technology acts as a direct tool substitute, with functional improvement) have been shown to enhance student learning. The top two levels, however, modification (where technology allows for significant task redesign) and redefinition (where technology allows for the creation of new tasks, previously inconceivable) will significantly enhance student learning and lead to higher cognitive skills (Common Sense Media, 2016).

Because the majority of courses will introduce new technology when they transition to an online environment, instructors may not be familiar it. If an instructor attempts to teach an online course without being extremely familiar with the technology they will be unable to support students if they have challenges. As a result students will likely become disengaged possibly leading to dropping out. In addition to becoming familiar with new technology, if resources are being implemented that had not previously been used in the face-to-face course, such as videos or computer adaptive assessments, instructors will have to become familiar with those as well.

Assessment & Accountability

Effective assessment methods are going to differ between face-to-face and online classrooms. The assessment opportunities that online delivery offers, such as immediate results sent to teachers and students, specific diagnostic feedback, and adaptive testing make online assessment attractive. However, important aspects of classroom assessment that instructors may be familiar with are removed when the walls of a classroom are removed. For example, informal classroom assessment is one of the primary pedagogical techniques that instructors use to gauge students' understanding. This type of assessment is typically conducted by verbally posing questions to students, asking for a show of hands, observing student behavior, and taking note of the questions that students are asking. In some cases, the same methods can be used in an online course, but important aspects of informal assessment, such as observing student behavior, are completely removed. Other methods will require training such as asking for a show of hands, or taking note of student's comments and questions from a remote location.

Providing frequent and comprehensive feedback to the entire class, while important in face-to-face courses, is more significant in online classes. Especially if the course is asynchronous, instructors have to direct their feedback and responses to all students in other ways. For example, if a student emails a teacher a question, in a traditional classroom the teacher could answer it in front of the class but in an asynchronous online course an instructor should send an email answering the question to the entire class in the event that other students had the same question (Edwards, Perry, Janzen, 2011).

Accountability in an online course is substantially different than in a traditional classroom as well. Teachers can observe student behavior in the classroom when a student is taking a test, but when a student completes a test in an online environment teachers cannot be sure who is answering the items and what resources students are using to answer them. Online teachers should be trained in alternative assessments that are appropriate for an online environment that increase the likelihood that students are demonstrating their independent knowledge and abilities (Rovai & Downey, 2010).

Supports

Students will require support that is beyond the scope of that they likely requested in a face-to-face classroom. In a face-to-face classroom students typically require support associated with the curriculum, assignments, or processes such as assignment due dates. In an online environment, students will require that same support but will face additional challenges such as lack of experience with technology, geographical separation, and engagement.

In a virtual environment, a teacher is challenged to address the individual needs of each of participants and increase comfort levels and therefore participation of all learners. Participants in an online learning environment take on a greater cognitive load than students participating in a face-to-face learning environment (Littlejohn, 2001). Gaytan et al. (2007) indicate that online learners are often presented with nonlinear online materials, websites that contain a greater amount of saturated information, and sometimes improperly arranged online materials. These processes include the location and navigation of a variety of embedded links, as well as comprehension of how to gain assistance if a link is not working properly, and the understanding of downloading and uploading materials. As each of these processes is unique to online learning, the instructional practices employed in the traditional classroom no longer satisfy all of the needs of the online learning environment. Online instructors have to be prepared to provide students support beyond that offered in a traditional classroom.

Effectively Instructing in an Online Environment

In the previous section I outlined the primary differences between teaching online versus in a traditional classroom. Though the differences seem significant, there are strategies that instructors can use to effectively transition from a face-to-face classroom to a virtual environment. In this section I discuss nine strategies that a synthesis of the current research suggests will address the differences outlined in the previous section. The information provided here will further demonstrate why a formal instructor training program is necessary to prepare teachers for the unique challenges that online learning brings.

Nine Strategies used by High Quality Online Faculty

1. Know the technology.

Prior to the first day of class an instructor should be familiar with the technology that students are going to be expected to use. While technical support services are likely available, the instructor will be a student's first stop for support. However, one of the strategies that teachers can implement is being very transparent about where students should go for technical support (Hanover Research Council, 2009). That is, make technical support service contact information readily available and when teachers are asked for technical support they should feel comfortable directing students to other services. While technical support services will likely be available for students, teachers should still be prepared to troubleshoot. The ability to resolve technical challenges during class time, such as during synchronous discussions or collaborative real-time activities, will save class time. Additionally, when referring to technical competences I am referring to both basic computer skills but also instructors need to be very comfortable with the platform that the courses are being delivered on. Instructors will save time planning and grading if they are familiar with the learning management system (Keengwe & Kidd, 2010).

2. Create and maintain a strong presence.

The online classroom is no place for passive instructors. The Community College Research Center interviewed learners in an online classroom who generally indicated that they felt their instructors in the face-to-face classroom had a stronger presence than their online instructors (Community College Research Center, 2014). This is likely because physical proximity contributes to presence even without an instructor verbalizing anything. Online instructors have to overcompensate for the lack of physical proximity. Even before the first day of class an instructor should send a welcome message to all students, by video if possible. Then, throughout the entire course, identify ways to maintain a strong presence, such as regular and varied verbal communication and the use of non-verbal communication such as emoticons. Some strategies that have been found to be successful include: using video chat rather than basic instant message, beginning discussions in the discussion board, rapid, regular, and open responses to questions, and a complete profile that demonstrates professional and personal traits (Keengwe & Kidd, 2010).

3. Set clear expectations for the course.

An instructor of an online course should set clear expectations for the course early. Teacher expectations in virtual platforms do not mirror those commonly conveyed in face-to-face environments. Vrasidas & Glass (2004) have indicated that teachers in online communities must be trained to place much greater emphasis on learner participation. Vonderwall et al. (2007) have remarked that teachers should outline how an individual's grade in the course will be determined, as participation often makes up a much larger portion of the grade.

Instructors should also be clear about expectations for communication inside and outside of the classroom. Students should be clear about how much they will be expected to communicate and whether they will be held accountable for participation in any way. Also, responding to student questions quickly is important, however it is also important to set parameters for response time. For example, an instructor should make it clear that he or she will respond to emails within one business day and if for any reason he or she will not meet that expectation it should also be communicated. In the age of rapid response students may expect an instructor to answer an email within a few hours, and if he or she doesn't, the student

may disengage. If expectations for communication are made clear students will know what to expect (Carbone, 2000).

4. Establish a sense of comfort and develop a community of learners.

A virtual environment is new and different to many online learners. Feelings of fear, anxiety, and isolation can contribute to attrition rates, so instructors should be prepared to create an inviting environment that evokes comfort in all learners (Ebersole, 2008). Instructors can begin this process by demonstrating feelings of enthusiasm and excitement about teaching the course.

Teachers' enthusiasm has been shown to be related to participants' attitude toward online learning. Ellis & Phelps (2000) found that online participant motivation is related to the amount of interaction with their teachers and enthusiasm conveyed by the instructor. Hase (2003) has found that teachers who have been perceived by participants as emotionless evoke feelings of isolation, anxiety, and nervousness. After establishing a sense of comfort, instructors can begin to develop a community among the class.

Instructors should model the culture of community that they would like students to adopt. Many of the strategies align with those related to establishing a presence. That is, instructors should humanize themselves by posting a welcome video, a biography, photos that tell stories about what he or she likes to do in free time, links to news articles or video clips. A personalized presence will ease the tone in the class and will introduce a level of comfort to the group. The instructor should also encourage each student to personalize his or her own homepage and spend time going around the class asking students to share information about what they have posted. In this way students can identify commonalities and begin to develop a sense of community through socialization (University of Maryland, University Campus).

Hobaugh (1997) found that the socialization component that is a norm in face-to-face classrooms is often overlooked in online courses. Richardson and Newby (2006) indicate that if teachers are trained to utilize interactive technologies to their full potential and incorporate online resources such as instant messaging, web cameras, blogs and vlogs, similar socialization found in face-to-face learning can be realized in online learning.

The community established early in the course should be maintained throughout, as research has shown students who perceive themselves to be part of a learning community are less likely to drop out of the course (Yang, Sinha, Adamson, Rose, ND). Robinson & Darling-Hammond (1994) have outlined the essential characteristics associated with effective collaborative communities. These features include: open sharing of information, ongoing commitment to the community, collaborative decision-making, common goals, mutual self-interest, and mutual trust and respect. Facilitating community development is made much more challenging when physical interaction is removed.

Allen (1997) outlined three practices online teachers should be trained to implement to encourage participant interaction and build a learning community. Teachers should ask questions that empower participants to question each other. Teacher's inquiries should not prompt direct responses; rather they should elicit rich discussion. Teachers should respond to the community as a whole rather than direct all responses to individual participants outside of community interaction. Collinson, Elbaum, Haavind, and Tinker (2000) have echoed these contentions recommending that online teachers ask questions that produce deeper thinking, require learners to summarize information, and provide feedback that promotes deeper reflection. Community interaction in eLearning will not come to fruition should a teacher not understand the appropriate phrasing to use when posing a question or if they are unaware of the correct follow-up explanations to provide (Bostrom et al., 1995; Chang, 2001; Collision et al., 2000; Cosner & Peterson, 2003; Dennen et al., 2007).

5. Promote reflection and communication through quality asynchronous discussion.

For a participant to learn from his colleagues and intelligently contribute to a discussion, he must reflect on the comments of other members of the course before providing a thoughtful response. Vrasidas & Glass (2004), Sahin & Ismail (2007), and Vonderwell et al. (2007) have all agreed in their research that an effective online teacher is aware of how to promote such reflection. Delfino et al. (2007) indicates that successful strategies of an online teacher include understanding the cyclical nature of asynchronous discussion and comprehending the importance of not permitting a posted topic to be abandoned on a discussion board. An effectively trained teacher would continually return to posted topics allowing for reflection and discussion. Vonderwall et al. (2007) echoed these contentions when they noted the importance of understanding how to properly assess asynchronous discussions and promote community building by addressing topics posted that had not yet been fully discussed and understood by the community.

Monitoring participation, both synchronously and asynchronously, is a necessary component of online teaching as well. Another characteristic of online learning that Chang (2008) found participants to indicate as necessary is a teacher who employs learner motivational strategies. Participants, therefore, prefer a teacher who is monitoring progress and discussions consistently and requesting participant contributions when such are not being provided. Teachers should contact students on a personal, off-line basis to discuss participation (Delfino et al. 2007). It is important to note, however, that this contact can also be the result of a participant taking over conversations and not permitting contributions from other individuals (Novack, et al., 2007). The facilitation of appropriate and equal contribution to discussions therefore requires constant monitoring and maintenance of on-topic conversation (Spataria, et al., 2007). An online teacher then must understand how to properly monitor the work that each member, and each collective group, is accomplishing (Salmon, 2000).

6. Have a good balance of active leader and active observer.

Another skill online teachers must hone is the ability to begin the course as a manager of learning, possessing the majority of the responsibility in the learning community. As the course progresses, the teacher should be able to gradually transfer the responsibility of manager of learning from himself to the community of learners. This task is met by effectively implementing the strategies associated with online community building and gradually retracting further out of communal discussions. By the end of the course each participant should be acting as a self-directed learner (Song & Hill, 2007).

7. Request regular feedback and be cognizant of misinterpretation.

While traditional verbal feedback from students is not easily communicated to teachers in online environments, this does not mean that course evaluation is absent. Course evaluations in online learning are more important given the nature of the delivery. Traditionally, teachers will use a summative survey to allow the students to express their thoughts about the course and hold the teacher accountable. This feedback can prove useful when designing a new online learning course or revising the current one for a subsequent cohort of participants (Coogle et al., 2002). However, formative surveys at interim points (either formal or informal) are also used to assess learner comprehension of material as well as student attitude toward teaching, discussion, and workload (Githens, 2007).

Instructors should regularly ask students for feedback on how the course is going and make course correction as necessary. Similarly though, it is sometimes easy to misinterpret what a student is communicating online when tone or context are absent. Instructors should encourage the use of emoticons or other visual cues to support appropriate interpretation.

8. Regularly check content resources and applications.

Understanding how frequently what is online can change, instructors should regularly check all links, resources, modules, and activities. Students may attempt to complete an assignment, find it is not working, and rather than communicating this to the instructor, become disengaged. Assuming that all resources and links are working properly, a teacher should also assist students who are having difficulty navigating course links or managing the nonlinear material on various web pages. Participants who cannot navigate through sites with ease tend to isolate themselves from the community of learners, fade into the background of the course, and sometimes withdraw from the class because they find they are getting lost in the interactions (Chang 2001). To overcome these barriers, teachers should model the process of navigating to websites that are not embedded in the course, and demonstrate how to appropriately manage non-linear materials. Muirhead (2004) has added that trained teachers continually assess the needs of participants by asking direct questions about tasks such as navigating links and managing non-linear material, and offering support when necessary.

9. Expect the unexpected and remain flexible.

Instructors should expect that at some point technology will fail, whether it is a video chat not connecting or assignment and/or resource links not working properly. Instructors should have a backup plan for all assignments and assessments that rely on technology and should remain flexible if they are required to implement them (Salom, 2000). Similarly, instructors should be transparent in their communication to students about technology failure. For example, a policy should be put in place that clearly outlines the actions students should take if they are unable to submit assignments due to technical issues.

Best Practices for Training Instructors to Teach Online

Given the rationale that teaching online requires skills and best practices beyond those used in a face-to-face environment, an important component of any comprehensive online program should be an instructor training course. In fact, the Southern Regional Education Board (SREB) published standards for planning and evaluating online professional development courses and programs. Included in these standards was a remark on the need for instructors being highly qualified in their subject area and well trained in online course facilitation (SREB, 2007). The document stated:

> **❝** *Program is delivered by an online [teacher] with content knowledge and the ability to communicate effectively in writing, as evidenced in the course syllabus, learning activities, instructions, threaded discussions and email."*

(p.4)

The document further states:

> **❝** *Program is provided by an online [teacher] with knowledge of online learning strategies. Using these strategies ensures quality and frequency of participation"*

(p.4)

One of the largest bodies of literature on the importance of training teachers to instruct online comes from the research of Gilly Salmon who has published numerous books and articles documenting the importance of eLearning and online teaching training. Salmon (2000, 1999, 2002) has also noted the importance of training teachers in an online environment given that it will be the same environment in which they will be delivering the content in the courses that they lead. Salmon remarked:

> **❝** *Any significant initiative aimed at changing teaching methods or the introduction of technology into teaching and learning should include effective teacher support and training, otherwise its outcomes are likely to be meager and unsuccessful"*

(Salmon, 2003, p. 80)

An effective transition from teaching in a face-to-face classroom to an online environment will require planning, resources, time, and training. If done appropriately, though, the transition can lead to a high quality online program. In this section we present nine important strategies that lead to effectively training instructors to transition from high quality teaching in the classroom to online.

1. Work from the ground up to obtain teacher buy-in.

Before any effect can be seen as a result of training, instructors must be open to development. Rhodes, et al. (2004) indicated that success and effectiveness of any type of teacher professional development program depends partially on the buy-in from participants. Results from the Rhode's (2004) study indicated that if instructors believe that professional development was being done "to them" rather than "for them", they are less likely to benefit from the training being offered, Supovitz and Turner (2000) mimicked such findings. Rhodes, et al. (2004) further concluded that instructors in their study had indicated that professional development often ignites feelings of top-down direction, and would be accepted more openly should the training be individualized, needs-based, and teacher-centered.

The paradigm shift that the education community has realized with the rise in online education has been swift. Any rapid change is likely to be met with at least some hesitation by instructors, specifically when it is clear that the transition between modes of delivery will require training and time. Due to the relatively new nature of online learning, instructors might have misconceptions about the level of rigor of online learning or the challenges associated with the mode of delivery. Administrators would be prudent to communicate important points about the transition (e.g that the level of rigor will remain) and implement a transition that is transparent and allows instructors to become involved. A bottom-up approach will help transform both their beliefs and their methods of instruction (Gregory & Salmon, 2013). Though administrators will refer to the literature to determine how to develop an appropriate online training program, they should also elicit feedback from instructors. If instructors' feedback about what training they believe they require to transition to an online format is at least combined with what the research suggests is important, faculty are more likely to buy-in to the training that is either offered or required. To collect data, administrators could disseminate a survey inquiring what instructors think they need or conduct focus groups to elicit feedback. Critical, is ensuring that the feedback offered is at least in part implemented (Cowen et. al, 2013).

2. Offer high quality professional development opportunities

Whether training online educators or instructors in traditional classrooms, it is critical that the professional development is high quality. High quality professional development, whether offered to instructors teaching online or face-to-face; is training that is ongoing, reflective, supports the construction of a professional learning community, is based in classroom

practice, and grounded in current research (Cowan, Neil, & Windet, 2013; Gragory & Salmon, 2013). Teacher training should also be tailored to instructors' specific needs and embedded in their daily lives, however it should be diverse and offer a wide range of learning activities (Taylor, 2013).

3. Run the trainings on the same platforms that instructors will be using in their class.

As noted in an earlier section, instructors teaching online should be familiar with the technology being used as well as with the platform on which they will be teaching. Online teacher training programs should be implemented on the same platform that teachers will be using in their course (Cowa et al, 2013; Shattuck, Dubins, & Zilberman, 2011). A first-hand experience using the platform will offer instructors an authentic experience and will give them the opportunity to experience roadblocks (e.g. signing onto the platform) or challenges (e.g. navigating a non-linear platform) that students in their class might experience. Training should also be authentic in terms of the content that instructors will be teaching in their course. For example, if an instructor will be teaching Science, learning that content during training will help the instructor become familiar with the types of resources or labs available online and how to navigate them in a real-world experience (Baran & Correia, 2014).

4. Differentiate instruction and use a wide array of resources unique to online learning.

When instructors transition to an online environment they will likely introduce new and different types of instruction. A high quality training program will be developed such that the person teaching the training course will model each of the strategies that an instructor will employ. For example, both synchronous and asynchronous discussion should be included in lesson planning, as well as the use of various resources that instructors will implement in their classrooms (e.g. web-cameras, videos, instant messaging, online whiteboards, etc.) Critical is that the instructor of the training program model as many different strategies and use as many resources as possible to help familiarize instructors (Storandt, Lacher & Dossin, 2012).

5. Online teaching pedagogy and content are important, but an online teacher training program should also focus on soft skills.

In addition to training on online pedagogy and subject matter, instructors transitioning to an online environment should be trained in soft skills that are critical in running an effective online course. Research suggests that the three most noted "soft-skills" that instructors will need to effectively teach an online course are administrative/organizational, time management, and self-direction. Largely, these areas are related. A great deal of an

online learning course is asynchronous and is therefore occurring at a student's pace – which will likely vary by student. Therefore, teachers need to know how to best organize this mode of learning, when to be available for student inquiry, and when they are "out of class time". Conversely, instructors should also be self-directed and self-motivated so that they know when they are "in class time" and monitor discussion, or grade assignments (Cowan et al., 2013).

6. Pair new online instructors with veteran mentors.

High quality instructor training facilitates the development of a community of learners that can act as a support system for instructors as they are delivering their courses. In research on an online teacher training program that paired new instructors with mentor veteran instructors, Smith (2008) found that the more highly engaged instructors found their mentors to be, the more prepared they felt to teach in an online environment following their professional development.

7. Develop a model for ongoing support.

One of the ways that professional development can be ongoing is if the community of online instructors maintains contact, shares experiences, and best practices. Smith (2008) found that after teaching their first online course, instructors who indicated that they had developed a community of online instructors indicated that they were more highly satisfied with their online instruction than were teachers who indicated they had not developed an online community of instructors. However, these methods should be facilitated by the institution that is offering the professional development. Although there might not be repercussions for not participating, institutions can promote engagement by creating the space for instructors to collaborate. Methods that can be used to promote an ongoing community of online instructors can mimic methods used in an online environment such as discussion boards with questions posed by a veteran instructor, chat rooms that are monitored by faculty who trained the instructors, and/or asynchronous discussion (Golden, 2014).

8. Expect that instructors will demonstrate mastery of the skills and best practices associated with online learning before they teach their own course.

While instructors can be meaningfully engaged throughout a training program, it is still important that they demonstrate a mastery of skills before teaching their own online course. Given that online instruction requires active, hands on learning techniques these should be the types of activities instructors should demonstrate as an end of training assessment (Cowan, Neil, & Windet, 2013).

9. Train Instructors to be aware of data security.

Included in an online teacher training program should be a form of data security training. When all information in the course is being transmitted online it becomes easy to leave data vulnerable for security breaches. Teachers should ask students to reduce their transmission of personally identifiable information to times when it is necessary. Similarly, when transmitting files, to the extent possible the files should be locked and/or transmitted through a secure file transfer site. Instructors have to be cognizant of housing student data as well. Student background, demographic, and identifying data should be housed in a secure file. Additionally, to the extent possible performance data should be transmitted privately and securely.

Conclusions and Future Research

Conclusions

This synthesis of the relevant research has demonstrated that in general, the knowledge, skills, and abilities required to teach a high quality face-to-face course are also necessary to teach an online course. However, because of the unique characteristics of the mode of delivery, additional skills and abilities are required to teach in an online environment. If an institution is transitioning from completely face-to-face courses to online or blended instructor, it is prudent to develop and implement a high quality teacher training program. Though indirectly, the implementation of a training program that is developed on the best practices outlined above will lead to important learner outcomes. In fact, Smith (2008) found that there was a strong, positive relationship between how effective teachers perceived their training program to be and a student's perception of the level of quality of the course they took from a trained instructor.

Future Research

Based on my review of the relevant literature, I have concluded that the research on high quality online teacher training programs is scarce in the literature. As Pearson continues to partner with institutions to develop and implement faculty training programmes as part of their online programme management services, we should conduct rigorous research that demonstrates the relationship between training and outcomes.

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