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Editorial

The Role of Cheating: Part 3

Donald G. Perrin

In previous editorials, we discovered that punishment for failure and inappropriate rewards for success may increase the pressure to cheat. Another problem is our method of testing. Repetitive use of the same test with answers that are easily memorized (like true-false and multiple-choice) assist cheating. Cheating may involve teachers as well as students when the stakes are high. I have attended tutorials where students *learn* actual questions from the exam, including expected answers when the test key actually has a wrong answer. Methods to prevent students from memorizing the sequence or context of answers include randomizing questions (A, B, C... versions), selecting alternative questions from a databank, or using randomly selected data for calculated items.

So called "Objective Test" items for higher levels of learning are difficult to write and validate. All too often, they are a shallow sampling of knowledge and skills with a dearth of analysis, problem solving, synthesis, and opportunists for creativity. During test construction, items everybody gets right are culled out. This means that test balance in sampling the total course content is distorted. What if there are ambiguities or cultural factors that lead a student to the wrong answer? Also, ridiculous alternatives may confuse a student who actually knows the right answer. And if alternative answers are partially right, should they be awarded a partial grade? The advantage of objective tests is they are easier to score. If there is no corrective feedback, they have little benefit for learning.

If tests are administered by a machine that gives immediate corrective feedback, we call it a teaching machine. This can be modified so that wrong answers trigger additional questions until the student "gets it right"! If the machine provides tutorials and step-by-step solutions, it becomes Just-In-Time training – like the tutorials in Microsoft Office. Testing devoid of real-world context, sequence and purpose is a waste of time – like spinning wheels – when testing and evaluation can actually be a part of learning!

Performance testing is more accurate and reliable. Criterion-based performance testing allows for testing of higher level skills and terminal course behaviors. It can be a real life experience, a simulation, a creative project, a portfolio, or a problem solving exercise where the student presents the analysis and solution in writing (or on a computer). If cheating is likely to be an issue, it can be conducted in a controlled environment.

Depending on the rules of the game, cheating may actually be encouraged. A change in testing strategy may make cheating irrelevant. For example, testing that is used to measure progress should not impact the final grade. If the student is not punished for not knowing the answer, making errors, or submitting late, and instead is assisted to learn and comprehend the erroneous or missing knowledge and skill, criterion performance can be achieved. What matters is learning – learning the student is able to demonstrate at the end of the course. Obviously, the student will perform better if assisted to learn rather than being downgraded for mistakes during the learning process. If the terminal behavior reaches or exceeds criterion, why should a student's record reflect errors that have now been corrected?

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Editor's Note: This brilliant analysis uses Facebook and social media to explain the mechanisms at work in learning from the Internet. It has valuable perspectives in how learners relate to their peers, learn through social networks and replace face-to-face communication with computer mediation.

From face-work to Facebook: revisiting self-presentation in the age of Connectivism

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Keywords: Connectivism, Ed Trends, educational theory, Facebook, Face-work, Goffman, MOOCs, online Education, self-presentation, Siemens, social networks, sociological theory, virtual community.

Introduction

"All the world is a stage, and the men and women are merely actors (Shakespeare, 1599)." Erving Goffman, a twentieth century sociologist, employs this metaphor as part of his analysis of individual and group interaction, as well as the influence of environment and the significance of information. The question in the twenty-first century is: "How has the stage changed?"

In Goffman's earliest essay *"On Face-Work: An Analysis of Ritual Elements in Social Interaction"* (1955), he states that individuals jeopardize their sense of face (impressions unto others) in every interaction, as that is where others pick up the most powerful signals regarding one's emotions, disposition, and current state of mind. However, as will be discussed, interpreting facial expressions (a critical component of Goffman's theories) is limited in an online environment. The sociological and academic shift to the online environment opens up a proliferation of resources that allows individuals to connect to anyone and anything, anywhere in the world. According to Connectivism theorist George Siemens (2005), learning can reside outside of ourselves, is focused on connecting specialized information sets, and the connections that enable us to learn are more important than our current state of knowing. He believes that people no longer need to be face-to-face to communicate.

It was once thought that personal contact can only occur when two or more individuals are actually physically in one another's presence, as one may have identified the members of their community with whom they interact with at their place of worship, children's school, marketplace, library etc. It was alleged that human beings needed face-to-face interaction.

However, in a 1968 article for Science and Technology, J.C.R. Licklider and Robert Taylor, both instrumental in the creation of the government researched ARPAnet, (predecessor to today's Internet), alluded to the shift away from the need for face-to-face socialization to that of computer mediated communication. They stated that communities will not be of common location, but of common interest whereby you simply identify the people whose files should be linked to yours. In the 1987 article for Whole Earth Review, Howard Rheingold was the first to coin the term "Virtual Community" referring to a group of people exchanging words and ideas through computer bulletin boards and networks.

Now, the twenty-first century stage includes the explosion of the Internet and Social Networking Sites (SNS). The Internet has made an impact on the way we view community (Cavanagh, 2007), as communication has become easier with the possibilities of using aggregators to bundle and filter information (Kop, 2011). There has been an elimination of the physical presence element of social interaction. Individuals conduct business with others thousands of miles away using the Internet, mobile devices, and video conferencing tools. Travel agents are practically no longer existent, as people are making flight reservations through the airline or discount travel websites. Class reunions are being organized on social networks. Gone are the days of coffee shop first

dates. Today, one-in-five Americans find his or her spouse via online dating services (Drexel University, 2012).

There is no greater evidence of the enormous shift from Goffman to Siemens than the stunning statistics on learning. Over 6.7 million students were taking at least one online course in 2012, which is more than one third of all higher education students distributed among the more than eighty-six percent of all college and universities that offer at least one online course (Allen & Seamen, 2013). The elite, pace-setting universities now embrace the internet, and online activity is at the core of how these schools envision their futures (Brooks, 2012).

Many of these universities are completely reshaping education by offering massive open online courses (MOOCs). These are usually free, credit-less, and with huge enrollments (Pappano, 2012). For example, Coursera, an online learning company founded by Andrew Ng and Daphne Koller of Stanford University, had registered 680,000 students in 43 courses (Lewin, 2012). Two additional companies, edX and Udacity, boast similar per course enrollments. The President of Stanford University calls what is happening within higher education a tsunami (Auletta, 2012).

Online education is not relegated to post-secondary academics. More than 4 million U.S. K-12 students enrolled in formal online learning programs in 2011 (Vander Ark, 2012). In 1997, the Florida Virtual School became the first Internet-based public high school, and now offers courses for all grade levels, starting with kindergarten. In the 2011-2012 school year, Florida Virtual School served over 148,000 students (www.flvs.net, 10/15/12). Online education (fully and/or blended) has taken over much of the real estate in the educational landscape. In fact, lawmakers in the state of Florida passed a bill that requires every student in public school to take at least one online course before graduating high school (Silvestrini, 2011).

This has changed the entire pedagogy of learning. Connectivism was born from the idea of the learner at the center, connecting and constructing knowledge in a context that includes not only external networks, but also the individual's own history and partialities (Anderson & Dron, 2011). The ability to now connect to any conceivable resource changes the manner in which one acquires knowledge both inside and outside of the classroom, and further significantly alters the way in which an individual may present themselves to others.

Goffman: Self-Presentation

The Theory – Front & Back

According to Goffman (1959), there are the roles that we play, and the stage on which we act out these roles for an audience. In every situation involving communication with others, we all assume roles. When we look at a transcript of what was said during a social interaction, coupled with behaviors of non-verbal communication, such as facial expressions, it is akin to looking at a script of a play, act by act.

The Shakespearean metaphor alluded to earlier, hinges on the notion that life is a series of performances. When an individual plays a part he covertly desires his viewers to take seriously the imprint that is nurtured before them (Goffman, 1959). The audience of these performances comes in two forms – those who simply watch and those who play along. Accordingly, an actor may alter his performance based on whether those in front of him are just watching or communicating. In education, there are students who participate in class, and those who do not.

Actors must withstand their personal identity and simultaneously be flexible to various settings. This cross-section of social roles, interactive behaviors, and expectations of audience is known as "Front Stage". Front stage is the animated tools of a typical kind deliberately engaged by the individual during the performance (Goffman, 1959). It is defined by how others read the individual's face. People have an idealized vision of themselves in a social context – a

conceptualization of what an interaction or situation should look like – and act accordingly. Goffman (1959) states that when an individual presents himself to others, his performances tend to integrate and typify the official accredited values of the society. The front stage becomes a shared symbol in its own right, thus indicating that there is some level of social consensus whereby others on stage may be perpetuating an impression for the sake of the ideal. In every interaction, there is always the danger of committing a gaffe whereby an individual may offend another person in some unintended way. What is often forgotten in an online course is that the course itself is the front stage for a performance. The process of self-presentation in order to stay in character such as changing face pending certain situations is known as face-work.

The front stage is mediated by the context in which performance takes place including the situation, audience, social setting, scenery, props, and actual location. An example of a twenty-first century front stage is a virtual community.

The back stage is where performers are present but the audience is not. It is defined specifically by the lack of audience. Their mere presence would alter the condition. Correspondence between actors and audience becomes supreme in defining trustworthiness and subsequently sanctioning roles and identity. If an actor's non-verbal or covert cues indicate one message and they overtly express another, then their authenticity is called into question.

How others see us

Face-work is an exercise in which we are constantly engaged every day, consciously or not. While each of us are, to a certain extent, autonomous beings, capable of choosing self-presentation strategies to perform for others, our performances are strongly influenced by the presence of others and the context in which we find ourselves (Goffman, 1959).

Social actors engage in complex self-negotiations to project a desired impression which is then maintained through consistently performing coherent and complementary behaviors (Schau & Gilly, 2003). The social actions required for self-presentation are consumption oriented and depend upon individuals displaying signs, symbols, brands, and practices to communicate the desired impression. Consumers self-present daily as they select clothes, hairstyles, cars, etc. to impress others in any given context. Currently, social networks allow consumers to self-present themselves beyond any time or regional setting through a virtual world.

Technology is changing how others see us

As technological innovations increasingly provide us with new modes for communication and interaction, it becomes necessary to evaluate the applicability of said theoretical frameworks. In an online environment, many social cues, such as posture, gestures, and vocal inflections, are absent. Behaviors employed to preserve one's face in virtual meetings may include the use of emoticons and other text-based prompts which permit the participants to communicate beyond the literal meaning of the words on the screen. Technological innovations are largely responsible for cultural shifts in perceptions regarding the self.

Traditional concepts of the self were that of a singular relatively stable identity. However, according to Goffman (1959), the self is based upon multiple loosely connected social roles. The self is constantly and continuously shaped by others and situational norms. Depending upon the stage in which we find ourselves and the audience that is watching, different pieces of the self emerge.

The Internet is a space that has its own "virtual culture" that makes it distinct from face-to-face interactions (Jones, 1997), and thus alters face-work all together. Goffman's sociological analysis of front and back stage requires new review in a society whereby communication mostly occurs through computer mediated technology, and face as the positive social value a person effectively claims for himself has been completely revolutionized.

Online Community & Education

Social networks

New technologies that influence how information is created and shared allows for new definitions of community and education that includes social networking and user-friendly publishing tools that increase engagement in online conversations (Siemens & Conole, 2011). Consequently, communication for various purposes (i.e. flight reservations, class reunions, dating, etc.) has been opened to a mass market, triggering the social network and online education booms. Learning is now networked where the connections are many-to-many (i.e. MOOCs) and where they might run in any direction between the participants and the resources related to learning (Kop, 2011).

Social networks consist of well-connected people who are able to foster and maintain informational flow (Siemens, 2005). They are virtual communities for people to share their daily activities and particular topics of interest with family and friends, as well as increase their circle of acquaintances. Members create their own profile with biographical data and communicate with each other by posting thoughts, ideas, and insights onto their own public page.

In 1997, referring to the phrase "six degrees of separation," SixDegrees became the first social networking site. Other popular sites, such as Friendster and MySpace, soon followed. There are now over five-hundred social networking sites worldwide, including Flickr for photo sharing, LinkedIn for business networking, and Twitter for micro-blogging and general updates.

The Facebook effect

The most popular social networking site to date is Facebook. Facebook was created in 2004 by Harvard University student Mark Zuckerberg. As of October, 2012, Facebook had one billion active users, eighty-one percent of which were outside of the United States and Canada; seventeen countries had thirty percent or more of their citizens as active members on Facebook (www.newsroom.fb.com/key-facts, 11/1/12). It has become an overarching common cultural experience for people worldwide (Kirkpatrick, 2010). In 2011, the term “Facebook” was googled over twenty-five billion times (www.google.com/trends/, 11/1/12).

Facebook is an online social networking site in which members create and maintain a profile through relaying personal information and updates on their wall (Westlake, 2008); it provides opportunities for individuals to share contact information, schedules, relationship status, personal interests, photos, and messages (Towner, Van Horn, and Parker, 2007). In essence, an individual’s profile becomes their online face.

One of Facebook’s benefits is the capability to create a personalized group. Groups are defined as relatively tightly formed with shared interests and intentions (Canole, Galley, & Culver, 2011). One can use this Facebook application to customize a group regarding any given topic. It can be as general or specific as one may desire. Once the group is formed, the administrator (group creator) can add any or all of his/her Facebook friends to the group. Once someone is a member of the group, they can then add any or all of their Facebook friends. Additionally, anyone searching for special interest groups may request to join. Consequently, a group’s membership may grow exponentially within a short period of time. As Facebook groups typically have a specific focus, the front stage includes a very participatory audience with each individual member interacting based on the composition of the group.

One example of a Facebook group is called Ed Trends. This group aims to discuss current educational trends and issues, share valuable resources and advocate for educational policy (http://www.facebook.com/#!/groups/198207500195857/, 11/1/12). This group presently has approximately four hundred members, to include prominent authors and presidents of professional organizations. As members are able to add their own friends to the group, one may not know all with whom they share membership in this virtual community. One of the more

frequently shared and discussed topics is Khan Academy which is currently revolutionizing education. Another example of a specific resource shared on Ed Trends is "Share My Lesson" in which educators can come together to share their very best teaching plans and give access to an online community where teachers can collaborate with, encourage, and inspire each other. In this fashion, one virtual community begets another. It is, therefore, possible that a teacher in Florida, unbeknownst to him/her, provides strategies to a teacher in Wyoming which in turn allows for more effective classroom instruction. Thus, one may not know the full impact or influence of a specific resource that they share in Ed Trends. Due to the more anonymous nature of communication within a group, self-presentation, as Goffman had described, may seem to have more cautious overtones. However, once individuals are learning from one another in an online community, it becomes clear to see it as a pedagogical tool, and why online education has become much more commonplace, as previously demonstrated.

Online learning

Colleges and universities could take advantage of the new ways that students are communicating with one another (Pempek, Yermolayeva, and Calvert, 2009). According to a study by Okita, Bailenson & Schwartz (2007), student achievement is improved by the mere belief that they are participating in social interaction; Sadera, Robertson, Song, and Midon (2009) indicate that there is a positive relationship between learners' sense of community and their learning success in online courses. Social networks help instructors connect with their students about assignments, upcoming events, useful links, and samples of work outside of the classroom (Munoz & Towner, 2009). Social interaction not only breaks the border of isolation due to distance, but it also creates an environment for students to learn in a collective way (Wang, 2005). Social networking sites can be used to support social interaction and collaboration to enhance the discussion of thoughts and ideas (Holcomb, Brady, & Smith, 2010) and elevate the social presence (i.e. the degree of person-to-person awareness) which occurs in the computer environment (Tu, 2002). Communication dynamics within the classroom environment are critical factors in the learning experience (Baker & Woods, 2005).

There has been a significant transformation in online education from its inception in the late 1980's to the modern version. When the concept of online education was initially introduced, there were templates where instructors would cut and paste course material for students to review; the students would then attach their assignments for the instructor to evaluate. This did not actually provide anything greater than what is offered by e-mail communication. Additionally, at the start of online education, most people were still living in the dial-up age. This made any sort of synchronous communication (such as chats) difficult.

Due to the increased sophistication of technology, what appeared to be "bells and whistles" actually have transformed online learning by providing: a) similar experiences available in a traditional face-to-face classroom, and b) new pedagogical opportunities for critical reflection. This is exemplified in online courses which may include video streaming, PowerPoint presentations, article downloads, threaded discussions, etc. Online education offers the convenience of not having to confine yourself to a classroom and the flexibility to learn on your own time. Thus, online education may provide a more viable option as it offers both synchronous and asynchronous learning situations.

While online teaching requires more time and effort than face-to-face education (DeGange & Walters, 2010), digital technology helps us craft an approach to education that will allow us to fulfill the basic tenets of learning as people customize access to friends, family, and expertise through their virtual environments, social network, and online communities (Vander Ark, 2012). Salman Khan took advantage of the accessible technology tools to produce an innovative educational approach. Using short videos that he posted on YouTube, he began tutoring a relative hundreds of miles away from his home. Due to the distributive nature of the YouTube

community, membership of those watching these videos quickly increased exponentially. This grew into what is now known as Khan Academy. Here, individuals watch instructional videos at their own pace mastering content material in orderly succession by connecting one video to the next. As such, this serves as an example of independent learning.

Independent learning environments are not the same as an isolated learning environment (Baker & Woods, 2005). Isolated learning environments are truly one directional and cease when the individual believes that they have grasped all that they can. Failure to address the social and relational dynamics within online courses may result in greater feelings of isolation among the distance learners, reduced levels of student satisfaction, poor academic performance, and ultimately increased attrition (Baker & Woods, 2005). However, independent learning environments provide an individual the ability to take charge by creating his/her own personal learning community and acquire knowledge by never ceasing to make new connections.

Siemens: Connectivism

The theory – connect the dots

Technology is the bridge that transports people from a world of communication limited by physical presence to a new world unobstructed by geographic boundaries. Including technology and connection-making as learning activities allows for new learning theories, such as Connectivism, to emerge in a digital world (Siemens, 2005). According to Kop (2011), learning is enhanced by four major types of activity: 1) aggregation – access to and gathering of a wide variety of resources; 2) relation – ability to reflect upon what has been gathered and apply it to earlier experiences; 3) creation – production of a new twenty-first century outcome such as a blog post, streaming video, or a discussion in an online group; and 4) sharing –connection of those outcomes with others via networking. The theory of Connectivism parallels these four major types of learning activities, as it asserts that personal knowledge is comprised of a network (aggregation), which feeds into organizations and institutions (relation), which in turn feeds back into the network, and then continues to provide learning to the individual (creation); this cycle allows learners to remain current through the connections (sharing) they have formed (Siemens, 2005).

When one does a connect-the-dots puzzle, each time one dot is connected to the next, the person becomes closer to understanding what the completed picture should look like. Every time an individual makes a connection to another individual or a resource that resides outside of one's self (such as in an online community), they have the possibility to reach a completely new understanding of a given concept. The focus on active participation is most suitable here as this type of learning encompasses the dynamic engagement of many people through the sharing of key resources (Kop, 2011). According to Connectivism, this is a new form of knowledge acquisition. Each dot is another step in the learning process.

The theory of Connectivism provides a useful lens to interpret how individuals access and interact with experts from within their professional discipline in multiple and far-reaching locations (Mackey & Evans, 2011). It is not simply a technique for improving individual educational outcomes, but rather seeks to build communities and collective capacities for learning (Ito, et. al. 2013). It is driven by the understanding that learning is the act of determining what is important versus what is not from within a broad range of rapidly changing information (Siemens, 2005), and that which arises out of interaction between a large number of people and informational assets (Williams, Karousou, & Mackness, 2011). Knowledge that resides in a database needs to be connected to the right people in the right context in order for all the dots to be accurately connected and for learning to occur (Siemens, 2005). While people connect through communities of learners that are supported by today's technology (Nussbaum-Beach & Ritter-Hall, 2012), the

capability to discriminate between significant and insignificant information becomes considerably more critical.

In essence, Connectivism proposes teaching strategies without formal teaching dynamics that allow the educator to have the role of facilitator (Siemens & Downes, 2009). This notion completely embraces the concept of educator as guide on the side, rather than sage on the stage. Khan Academy serves as a strong example of this idea. The reimagined educational structure demonstrates a shift from pedagogy where the teacher decides what is to be learned, to androgogy where the learner makes his/her own choices. There is not a specific body of knowledge to be transferred from educator to learner, but rather knowledge that is circulated across the Internet.

In the present multifaceted learning atmosphere, which includes embryonic technologies, new methods of learning are continuously evolving (Conole, de Laat, Dillon, & Darby, 2008). Social networks can now provide numerous pedagogical advantages (Munoz & Towner, 2009), as people use the massive technological tools that are at their disposal to construct their own personal online learning environment, and form an interconnectedness through various sites such as Skype or Google Hangouts (Khan, 2012). It is relatively effortless today to become a producer of information rather than solely a consumer (Nussbaum-Beach & Ritter-Hall, 2012); thus, people's collaboration with technology reinforces learning.

Social value of being connected

As discussed previously in this article, learning is no longer defined as a predominantly face-to-face experience. Connected learning is socially embedded and interest-driven (Ito, et. al. 2013). Consequently, in today's society, it has become much more difficult to engage in face-work exercises. Face, as the positive social value a person effectively claims for him/herself, is no longer distinguishable.

Connectivism learning almost always remains primarily anonymous. One may never get to know everyone in their own virtual community. At any given time, someone can be communicating with many on several social networking sites and simultaneously dialoguing with members of a Facebook group. Therefore, one may never know the audience in front of whom they may be performing, and further not know how to show face.

Finally, the theory of Connectivism challenges the theory of self-presentation. With its' emphasis on the employment of technology to build virtual relationships as the intentional act of learning, it demonstrates that one may not need to care about the effectiveness of their own face-work exercises. Rapidly changing audiences render front stage inconsequential, and with so much connectivity, there is almost never a lack of audience so that one rarely goes back stage anymore. Thus, in today's world, the ability to develop many connections is more important than expressing face within any particular face-to-face interaction.

Conclusion

This article has applied Erving Goffman's 1955 Self-presentation theory to George Siemens's 2005 Connectivism theory, linked by five decades of emerging technologies. Content presents itself at a millisecond's pace, and people's interaction with such resources appear, disappear, and reappear equally as quick. As a result, Goffman's question of how one shows face has become ominously different. The reformation of the theory of self-presentation mirrors the emergence of the theory of Connectivism. We have seen two parallel theoretical shifts: 1) sociological (Goffman) – from face-to-face interaction to online virtual communities, and 2) academic (Siemens) – from pedagogy to androgogy.

Technology has advanced in a way that has allowed for communication beyond just linking files on computer bulletin boards. These developments have transformed communication and

education exponentially. Social networking sites, such as Facebook, LinkedIn, and Twitter, as well as groups, such as Ed Trends, have connected people to resources never before available. Learning management systems have been updated to include all forms of synchronous and asynchronous instructional activities. There indeed has been a tsunami of online education, as MOOCs become more commonplace in today's higher education institutions.

Technology provided the conduit for this historic societal makeover, transforming Goffman's sociological theory to become part of a revolutionized educational interdisciplinary theory. As we are now living in a world where both communication and learning occur instantaneously, anywhere and at any time, the Shakespearean view that "All the world is a stage…" has moved into the twenty-first century.

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Editor's Note: Higher levels of learning produce problem solving abilities, creativity, innovation, and considered judgment of complex issues. Needless to say, it is a long term goal of education that encompasses all that we have learned and how we relate to the world we live in. Philosophers have sought to define wisdom in its many aspects. This exploration of the literature leads us toward ways to develop wisdom as part of our doctoral programs.

Integrating Wisdom into Online University Classes

Brent Muirhead & Anastasia Metros
USA

Abstract

The discussion provides an informative review of wisdom literature. The narrative highlights how wisdom is integrated into online classes with a focus on doctoral degree programs. Dissertation chairs can help students cultivate wisdom through reflective feedback and personal self-assessment.

Keywords: online education, wisdom, dissertation process, dissertation chair, feedback, self-assessment

Introduction

The subject of wisdom represents unique challenges for researchers who try to discover the essence of this multidimensional entity. Wisdom studies have the potential to offer insights into human nature, the ability to make sound judgments with limited information and being able live a meaningful life (Peterson & Seligman, 2004). The study of wisdom reflects an "... immense interest in the topic, it's very complexity and definitional fuzziness exiles it to the fringe of academic respectability (Hall, 2010, p. 52)." The discussion will provide a concise overview on wisdom research and provide educational suggestions to integrate wisdom into online classes.

Wisdom literature

Philosophical approaches to investigating wisdom have roots with ancient philosophers. The Platonic dialogues contained three types of wisdom: pursing the truth through a contemplative life, political leaders applying practical wisdom and developing a scientific understanding of life (Robinson, 1990). The philosophers encouraged the pursuit of wisdom. Socrates was known for his sharp intellect and questioning style to help individuals recognize the limits of their knowledge. Socrates believed that false confidence was a major barrier to wisdom and used relentless cross-examining to remind people of their limited knowledge (Miller, 2011). He would ask colleagues questions as a way to help them to monitor and regulate their thinking, correct flawed definitions of ideas (e.g. romantic love versus maternal love) and examine information more fully (Haynes, 2010; Phillips, 2007). Socrates challenged people to recognize the importance of studying ideas with an open mind and be willing to seek advice from friends and work colleagues. Acquiring wisdom was considered part of a lifelong journey of learning and growing.

Psychological writers have often described wisdom through cognitive, emotional and social factors. The wise reflected specific characteristics such as exceptional judgment and communication skills, interpersonal competence and empathy for others (Holiday & Chandler,1986). One way to test a wisdom model or theory involves asking questions to study participants such as sharing advice for a fifteen year old girl who wants to marry in the near future. This approach reflects an emphasis on making sound judgments by being able to reach good decisions with uncertain and complex life issues. Smith and Baltes (1990) investigation discovered the ability to make wise decisions was based on relativism (discerning differences in

values/goals/priorities) and framing issues in the midst of uncertainty (Sternberg, 2001). The study highlighted how the development of wisdom is connected to self-awareness of what is important to the individual.

Cognitive psychologists such as Sternberg (1990, 1998) have refined their wisdom theories and place a greater emphasis on the role of emotions and values. Sternberg's balance theory describes how people can use their intellectual abilities for the common good. Individuals make decisions by carefully considering their interests in light of others such as family and community. The wise are cultural creators who select, adapt and change their surroundings to meet their needs and those of others.

Hartman's (2000) longitudinal study of midlife women indicates how emotional resilience plays a vital role in whether individuals enable or inhibit the growth of wisdom. A key factor is how people respond to life challenges such as physical illness or psychological problems. Hartman found that those women who had resolved their disappointment over a series of life choices demonstrated more wisdom than those with unresolved regrets or had no regrets. The wise are able to accept and understand what can or cannot be changed. This attitude of acceptance reflects how individuals frame reality and experience a positive mindset. "Ego resilience---the capacity to integrate and find meaning and purpose in stressful life events---appeared to play a significant role in the development of wisdom regardless of the number or ratio of negative events one has experienced (Peterson & Seligman, 2004, p. 193)."

Sternberg's balance theory and Balte's Berlin paradigm involve organizing and applying practical knowledge. "....both views of wisdom purpose that wise people can discern views of others, develop a rich understanding of the world and direct their actions toward achieving a common good." (Peterson & Seligman, 2004, p. 210) Sternberg's model affirms the need for expertise and altruism in problem solving. Wisdom emerges as people learn how to generate sound choices when presented with competing interests when solutions are elusive. Individuals balance personal interests within the context of the situation and make choices affirming the common good. Writers debate about the role of emotion in the wisdom literature. Hall (2010) is critical of the Berlin paradigm because the model neglects the importance of emotion and emotional regulation in making wise choices.

The subject of wisdom has been embraced by social scientists, philosophers, religious and business leaders and political writers. Writers offer an assortment of theories to represent this elusive concept. A promising way to understand theories of wisdom is to take a comprehensive perspective. Ardelt (2004, pp. 275-276) has outlined three major personality characteristics for those possessing wisdom:

1. **cognitive-** refers to the desire to know the truth and attain a deeper understanding of life, particularly with regard to intrapersonal and interpersonal matters.
2. **reflective-**represents self-examination, self-awareness, self-insight and the ability to look at phenomena and events from different perspectives.
3. **affective**- consists of a person's sympathetic and compassionate love for others.

The three characteristics are equally necessary personality components. For instance, an individual could have cognitive skills and become a successful business executive. Yet, those who are driven to obtain wealth, fame and power but lack honest self-reflection could increase their self-centered behavior and attitudes. Therefore, having just cognitive skills fails to insure the possession of wisdom but all three personality dimensions are necessary (Ardelt, 2004).

The wise are able to avoid the seduction of immediate gratification because the future will be better and more fulfilling. This mindset reflects confidence in an accurate estimate of a brighter future. It is a form of cognitive calculating that involves having the will power to resist being

impulsive. Life contains an assortment of decisions varying in importance. There are major decisions requiring considerable thought such as having children, buying a home or whether to pursue a college degree. Making difficult choices are often complicated by time constraints. Hall (2010, p. 178) relates “The element of time in human decision making, and whether making, and whether to be patient or impatient, might be viewed as the fourth dimension of wisdom.” Hall highlights how uncertainty is a natural part of life and there are times when a quick decision is necessary and the results could be life changing. Time can create unique challenges to act by impulse to resolve an issue is a “seduction by short-term rewards" (Ainslie, 2001, p. 178). The ability to resist making poor choices is a theme in biblical narratives and lives of religious leaders through the ages. Saint Augustine wrote *Confessions* in the fifth century about an intense spiritual journey where he developed the will power to resist physical temptations (Hall, 2010).

Wisdom involves knowledge, insight, and judgment. Intelligence, as the ability to learn or understand or reason as well as to apply knowledge or think abstractly, can be a component of wisdom, but wisdom is the larger entity. People seek wisdom as they navigate through life to make decisions involving their career, family, co-workers and friends. Wisdom becomes more urgent when major decisions must be made and greater attention is given to the potential negative or positive consequences. The amount of time devoted to various decisions about a significant other or career could involve years of careful preparation. There are other times a life decision requires immediate attention such as the diagnosis of a serious illness. Baltes (1993) research stresses how wisdom enables people to make exceptional judgments when facing major life choices. As Hall (2010) notes in *Wisdom: From Philosophy to Neuroscience,* "We crave wisdom—worship it in others, wish it upon our children, and seek it ourselves—precisely because it will help us lead a meaningful life as we count *our* days, because we hope it will guide our actions as we step cautiously into that always uncertain future.” (p.6)

Researchers struggle with identifying ways that effectively measure wisdom. Baltes and Staudinger (2000) use a maximum performance approach that is often used in ability testing situations. Other researchers such as Ardelt (2004) utilize a typical performance approach that is similar to personality testing. Sternberg (2004, p. 288) argues that "...it would be useful to investigate the relationship between the two kinds of measures to see whether they assess the same thing." The study would help compare and contrast the two approaches to identify patterns and differences. One of the challenges facing investigators is people usually operate apart from any formal theory when making judgments. Individuals will often rely upon informal situations and experiences that can produce flawed outcomes. The most promising way to resolve these complex issues is to conduct longitudinal studies to identify the consistent patterns of wise decision making over time (Sternberg, 2004).

Wisdom Instruction In Online Classes

Writers are united in viewing wisdom as a character strength (Peterson & Seligman, 2004). The integration of teaching wisdom into the university curriculum represents a new frontier in higher education. Sternberg (2001) encourages teachers to ask thought provoking questions that offer opportunities for individuals to be self-reflective. Class discussion from readings in philosophy, history and literature can explore the choices people made and evaluate their outcomes (Sternberg, Jarvin, & Reznitskaya, 2008). Students can be challenged to enhance their critical thinking skills, investigate the sources of their values and learn to develop strategies to learn how to balance their interests with those others.

Stephen Hall has written an excellent book called *Wisdom: From Philosophy to Neuroscience.* The author discusses investigations into the characteristics of those considered wise. Hall identifies eight pillars of wisdom with the following insights into these virtues:

1. **Emotion regulation**- researchers have found that older individuals will focus less on negative thoughts, place a greater value on relationships and demonstrate resilience to quickly bounce back from disappoints and adversity.
2. **Knowing what is important**- those who understand what is valuable to them and have learned to make consistently make decisions to affirm their values and beliefs. Individuals filter information and possess the patience to make the best choices. The decisions transcend immediate gratification or economic goals and often center on achieving relational objectives.
3. **Moral judgment**- older people understand how life is fragile, acquired emotional resilience and learn to savor each day and enables the individual to have a clear perspective on what is important in their life.
4. **Compassion**- the ability to be empathic and share to a degree in their suffering and demonstrate a deep concern for them. The concept requires the ability to step outside one's own self-oriented life and seek to understand another's perspective.
5. **Humility**- CEOs with narcissistic traits will make poor decisions and place their fame and fortune before the good of their companies. In contrast, leaders who are professionally driven and possess genuine humility can create great companies. Hall (2010, p. 142) observes that these wise leaders "...acknowledge limitations and mistakes, an openness to new ideas and new contradictory knowledge, a knack for avoiding self-aggrandizement, an ability to keep one's achievements in perspective, and the kind of self-aware self-perception that perceives both strengths and weaknesses."
6. **Altruism**- researchers have found in experiments that social interaction can be influenced by altruistic individuals who punish those who fail to make contributions to group projects. They strive for cooperation but are willing to make sacrifices and punish the loafers or cheaters in the group. These leadership traits represent the potential for social justice by resisting those who are greedy and have an entitlement attitude.
7. **Patience**- the ability to have a creative and positive vision of the future enables people to have self-control. An optimistic view of the future encourages people to have the imagination and confidence to pursue major goals and the will power to resist the temptations of pursuing superficial activities.
8. **Dealing with uncertainty**- a deep and specialized understanding or meta-wisdom that creates a decision-making system built around the developing the best approach to problem solving. This demands being adaptive and knowing when to break from tradition and flawed habits. There must be willingness to change. This requires having the cognitive flexibility and awareness to gain new information sources that affirm best decision-making practices.

The eight pillars of wisdom reflect the intellectual depth and importance of this subject. Wisdom is a positive character trait and has the potential to improve the quality of one's life. Online dialogs could use the pillar virtues to explore a variety of subjects by connecting wisdom to critical and creative thinking (Muirhead, 2011).

Future wisdom research should focus more attention or study to the cultural differences between Eastern and Western ideologies and religions. Eastern traditions give equal attention to both cognitive and affective while stressing the importance of humility and being compassionate. Western perspectives rely more heavily on cognitive skills while placing a greater emphasis on intelligence and problem solving expertise. Peterson & Seligman (2004, p. 195) note "the 'gold standard' approach to assessment is arguably wisdom relevant performance at social dilemmas, but this procedure is time-consuming and requires expert judges to evaluate performances." There is a need to experiment to identify more efficient ways to evaluate the nature of wisdom.

Implications for wisdom online education

Of the three major personality characteristics discussed above by Ardelt (2004) that of reflection will be the focus of discussion related to facilitating wisdom development. Cultivating a reflective practice is one way to build wisdom. Both reflection and an openness to learning play important roles in wisdom development (Chen, Wu, Cheng, & Hsueh, 2011). Ardelt (2003) and Bassett (2006) also emphasized the important role that reflection plays. Though, it is not enough to just engage in self-reflection as that only gives us part of the picture. Getting feedback from others aids in our understanding of self and enhances our reflection by understanding how others view us and our work. For the purposes of this discussion, feedback is defined as, "…information provided by an agent… regarding aspects of one's performance or understanding. A teacher or parent can provide corrective information… Feedback thus is a 'consequence' of performance" (Hattie & Timperley, 2007, p.81). The role of feedback has been discussed in the literature as assisting students to comprehend the values and norms within their academic discipline (Hyland, 2009). Feedback gives students information on their actual performance as it compares with expected performance and reduces cumulative error (Gao & Lehman, 2003).

A primary role of educators is dispensing feedback that assists students in building reflective understanding. The role that teachers play in forwarding wisdom development is important and can assist with students' understanding of such things as: values, life experiences and feelings (Chen et al., 2011). More evidence for the integral nature of wisdom and education comes from Orwoll and Perlmutter (1990) who found that 68% of those who nominated people as wise concurred that education is connected with wisdom. It is clear that education assists with wisdom development (Kunzmann & Baltes, 2005). However, despite the lengths that have been dedicated to defining and discussing wisdom, the facilitation of wisdom is a neglected topic (Chen et al., 2011). One of a handful of studies that looked at the facilitation of wisdom was done by Brown (2004) who used grounded theory to research wisdom development. The development of wisdom was found to be life-long and a spiral process that develops in increments and accumulates over time. Several authors (Baltes, 2004; Kunzmann & Baltes, 2005) posited that wisdom development is a process that requires extensive and intensive practice. Wisdom development is a lengthy, accumulating process. An educational situation where teachers have more opportunity to deliver ongoing feedback to students over a long period of time would lend itself to the potential for enhanced wisdom development.

One such opportunity to provide this prolonged feedback is the dissertation process. One of the most lengthy and intense periods of feedback that a student experiences is with her/his dissertation chairperson over the course of the dissertation life-cycle. During that process, student and dissertation chairperson work together over several years to craft a dissertation. It is during this time that a student gets especially intensive, long-term feedback on her/his thinking and writing. Individuals can use this feedback to reflect on their work to further develop wisdom. Without feedback, students have less robust information on which to reflect and build. According to Chen et al., (2011, p. 180), "In the absence of reflection, accumulated experiences and knowledge become fragmented data. If individuals fail to muster the will to face problems or are unable to learn from mistakes, the process of wisdom development may be rendered inert." As dissertation chairs, the role is to assist students to successfully complete a dissertation and ultimately to successfully complete a doctorate. Wisdom development can be a positive by-product of the dissertation process. How to develop that wisdom is complex in nature.

Chen et al., (2011) shared a model of wisdom that emphasizes the need for internal adjustments to our ways of being. Openness to learning and reflecting have a substantial impact on wisdom development. In order to develop wisdom, we must reflect on our experiences and internally process them and then make adjustments to the end of transforming future behaviors and actions. It takes energy and courage but according to Chen et al., (2011, p. 181-182)

> "If individuals can take the initiative to learn, have the will to confront problems and to learn from mistakes, and reflect on the knowledge and experiences that have accumulated internally, their intrapsychic inventory will yield insights and stimulate further changes, such as educators transforming their teaching or individuals changing how they treat people and approach issues. The results of these actions will bring additional feedback to individuals."

This additional feedback is helpful for reflective research practices and encourages individuals to make changes involving their thinking, actions and behaviors. This feedback and reflection cycle is a hallmark of wisdom development. Dissertation faculty devote serious attention to helping students understand the intellectual expectations of doctoral work and prepare them for an active role in the academic community. The online environment lends itself to faculty being able to provide quicker, more continuous feedback as compared to more traditional contexts (Williams, Brown, & Benson, 2013). As the dissertation process is one of continuous, timely feedback, the online environment is a natural fit for such. Although dissertation feedback is typically provided by faculty, Carless, Salter, Yang, and Lam, (2011) advocate for sustainable feedback that is given by multiple sources over time. One possibility for employing diverse sources could be that in addition to receiving dissertation feedback from faculty, students could also receive peer feedback. Garnering more feedback from more sources over a sustained period of time can help students improve their critical thinking and writing skills. In order to facilitate dissertation feedback from numerous sources in an online environment, Web 2.0 social applications such as Facebook and blogs can be used. Private online groups or sites within such tools can be established where students can post drafts of their dissertations for feedback from peers and faculty (Jolly & Boud, 2013). Individuals could post drafts over an extended period of time giving and receiving many instances of feedback. In this way, posting multiple iterations of their work allows them to develop over time and demonstrate evolution in their scholarly abilities.

Engaging peers in the dissertation process may also have the added benefit of critical reflection for those doing the peer reviews as they may be able to better self-assess their own work having had the benefit of learning from the trials and tribulations of their peers. Faculty could encourage cohorts of their own dissertators to have such groups who act as sounding boards for one another. Another approach is to have formal, group dissertation courses for credit or non-credit where students work together to provide feedback for one another guided by a faculty member. Certainly, the students' committee members would still be the ultimate source for feedback and direction, but especially in the early dissertation stages, having more perspectives may be helpful. In these examples, the idea of integrating wisdom in online classes is encouraged through sustainable feedback given by faculty and peers. This spiral approach to giving, receiving and integrating feedback helps to build a more robust understanding of current performance and expected performance so that those gaps can be bridged and future work can be improved. Having a multi-pronged and sustained feedback approach offers opportunities for wisdom growth. Building wisdom over time via feedback can be a reality in the online environment using this dialogic approach.

The role of the faculty and peers in providing this sustained feedback is an important one and must be carried out with an understanding of what it is the student needs by way of feedback (Bitchener, Basturkmen & East, 2010). So, what do students need in order to develop? An analysis of the areas where students need further development yielded several areas for attention. In particular, gaps in justification related to argument construction has been borne out in the literature (Cooley & Lewkowicz (1995) (1997), Dong (1998), James (1984). Specifically problematic is "… a lack of logic in their students' arguments, poor linking of ideas, an absence of transitions, and a failure to integrate tables and quotations into the argument being presented" (Bitchener et al., 2010, p. 89). Knowing that these are some of the trouble spots for students,

focusing extra attention on assisting students to develop in these areas would be beneficial. Faculty could make students aware of these common issues so that students could avoid them from the outset. Peers could also be asked to look for these particular issues and comment on them during their reviews. Students could also be given a self-assessment checklist with these items and other common dissertation errors so that they can utilize critical reflection to self-assess their work. Having identified a few areas that typically need more student attention, the question is how to package feedback about these and other areas for improvement and celebration.

It is important when giving feedback to use language that nurtures the student. Taking an approach of summarizing what the student is trying to achieve then identifying positive characteristics of the work then identifying major areas for improvement helps to nurture the student (Jolly & Boud, 2013). Especially in the dissertation process, using language that gives students an understanding of what needs to be improved without providing the actual correction itself will help students to build wisdom in their reflective practice on how to evolve their work. This type of practice encourages students to become more independent, self-directed learners by fostering wisdom development.

Conclusion

There is agreement among writers about wisdom being a character strength (Peterson & Seligman, 2004, p. 182) "is distinct from intelligence, represents a superior level of knowledge, judgment, and capacity to give advice, allows the individual at address important and difficult questions about conduct and meaning of life, is used for the good and well-being of oneself and that of others."

Wisdom development is a complex educational topic and challenges distance educators to consider creative ways to foster wisdom. Reflection promotes wisdom development and is enhanced by feedback from self and others. The dissertation process offers a unique opportunity for chairs to work with their students over a long period of time. Feedback can be given by multiple sources beyond faculty such as by peers using collaborative technology tools. These knowledge resources provide information and insights that will enrich self-awareness and enhance wisdom development. Nurturing language helps the message to be heard yet still delivered so that students can move to become more independent, self-directed and wise.

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Editor's Note: This is a detailed analysis of students' perception of support services and their relative importance as a component of distance learning programs.

Learners' perception of support services in distance education: a case for Bachelor of Education students at Kenyatta University, Kenya

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Kenya

Abstract

Learner support services are a critical component of quality distance education programme due to the physical and temporal distance which separates the instructor and the learner. Kenyatta University offers distance education programmes in various fields of study including Bachelor of Education (B. Ed.). This study sought to investigate learners' perception of support services provided in the B. Ed programme. The study adopted descriptive survey research design. The survey population consisted of 750 third and fourth year B. Ed students at Kenyatta University in the 2008/2009 academic year. Three hundred students (40.0% of the survey population) who attended the August residential session participated in the study. The students were randomly selected. Two hundred and seventy nine students (93.0%) completed and returned the questionnaire developed by the researchers. The study found that majority of the students (62.8%) were male, 90.1% were above 36 years old, 88.7% were married, 94.8% were in formal employment and 91.1% had been trained as primary school teachers. Out of the 11 learner support services examined in the study, three were perceived as satisfactory. These include provision of face-to-face sessions, assistance/advice for examinations and provision of regular and detailed report of academic progress. Eight services were perceived as unsatisfactory. These services include opportunity for out of class contacts with instructors, timely supply of course modules, handling of students' queries by administrative staff in the centers, stocking of libraries, quality of accommodation and catering facilities provided during residential sessions, opportunities for co- curricular activities and provision of counseling services.

Keywords: Distance education, learner support services, Learner perception, Bachelor of Education, quality distance education, background characteristics of distance learners.

Introduction

The world needs more and better teachers (Perraton, 2010). According to United Nations Educational, Scientific and Cultural Organization [UNESCO] (2009), half of the world's countries need to increase their number of teachers significantly if they are to enroll all primary school-going children by 2015. In Sub-Saharan Africa, a substantial number of teachers are being lost through Human Immunodeficiency Virus [HIV]/Acquired Immune Deficiency Syndrome [AIDS] (Perraton, 2001). This has resulted to inadequate number of teachers in post. At stake is the quality of education. In primary schools in developing countries, the average pupil-teacher ratio is 28:1 compared to 14:1 in developed countries (UNESCO, 2006). In Kenya, the pupil – teacher ratio in public primary schools was 43:1 in 2005, 50:1 in 2007 and 56:1 in 2011 (Government of Kenya, 2008; 2012). The recommended pupil-teacher ratio for public primary schools in Kenya is 40:1 (Teachers Service Commission, 2005). This data indicates the magnitude of teacher shortage in the face of rising public demand for education. In addition to the ever increasing demand for more teachers, teachers face a wide range of new demands and roles. National governments, international organizations and specific circumstances continually set new goals for education which teachers are expected to implement (Perraton, Robinson & Creed, 2007). Consequently, the skills and knowledge that all teachers need are no longer the fixed and familiar targets but changing ones. Teachers therefore have to upgrade their knowledge and skills in order to meet new demands in their teaching career that are geared towards the improvement of

the entire education system (Kamau, 2007). Kangai and Bukaliya (2011) contend that distance education is one of the innovations that can be used to improve both the quantity and quality of teachers.

Distance education has been described as the process of creating and providing access to learning when the instructor and the learner are separated by time, distance or both. According to Keegan (1996), the concept distance education refers to terms such as distance learning, correspondence study, home study, independent study, external study, and distance teaching. The terms have previously been used to describe education that takes place in a non-traditional environment. The terms are however not synonymous. Distance education as a method of imparting education is applauded for providing systematic teaching-learning process to persons living in isolated areas where facilities for traditional classroom teaching cannot be developed or are not available. Moreover, it addresses needs of specific target groups and has great variation in the range of programmes offered. Gurnarwardena cited in Usun (2003) note that the dominant future of distance education is the physical and temporal distance which separates the instructor and the learner. This places the learner in a unique situation in which neither teachers nor fellow students are physically present to clarify, discuss or provide feedback. Consequently, effective distance education requires a sound learner support system. Khoo, Sim and Idrus (2003) contend that any institution providing distance education programmes must also provide quality learner support services as an essential component of the programme. According to Dings (2002), learner support is the sum of all services in terms of information, learning resources, personnel and facilities provided by the distance education institution to the students. The services may be provided through face-to-face meetings, mutual communication based upon a technology media or both. The services are meant to meet the needs of distance learners by linking them with the faculty and administrative personnel. Adegbile and Oyekeanmi (2009) note that in the absence of effective and quality learner support services, distance learners are made to suffer untold hardships. The experiences may directly or indirectly affect their academic performance in the programme and their disposition towards distance education now and later in life. Tait (2000) therefore argued that learner support services must be provided to personalize and humanize the institution offering distance education so that students view the institution not as a faceless bureaucracy but as an entity to which the learner belongs. Considering the importance of learner support in distance education, Dillon, Gunawardena and Parker (1992) noted that analysis of learner support services is one important means of evaluating the quality of distance education.

Various scholars have studied learners' perceptions and experiences on learner support services with the results showing high or low rating of the provision of the services based on the context. Osei's study (2010) found that Executive Master of Business Administration (MBA) students in Ghana were satisfied with the teaching and learning offered through distance study methods and with learner support services provided by the host institution. However, students had concerns with delay in provision of feedback on assignments by facilitators and lack of adequate facilities. In a study conducted in Bangladesh by Islam and Jahan (2009), the learners were of the opinion that the number of tutorial sessions and the time allocated for the sessions were not sufficient to cover the syllabus. The students complained that instructional materials were delivered late. They also emphasized the need for transparency in the examination process. Xiaobin (2009) study in China found the curricular offered in distance education inadequate. The study further found the teaching models adopted as not always very reasonable, theories taught not always connected to developing practices, support to student learning inadequate, and instructor – student interaction low. Bukhsh (2010) study on students' perception regarding teacher education through distance learning in Pakistan found that majority (66.7%) of the students received instructional materials well on time, 85.9% were contented with the counseling services provided by the regional office, and 70.3% agreed that the attitude of the regional office personnel was polite and cooperative. However, the study revealed that majority (88.7%) of the students complained of unavailability of

tutors. Most of the students (53.6%) were not satisfied with the content of the study modules which they indicated were not updated, modern and containing latest knowledge of the subject. Bukaliya study (2012) in Zimbabwe Open University found that 42.0% of the students were concerned with poor timing of tutorials. The weekends during which the tutorials were held were mostly inappropriate for the rural based teachers who either lacked transport or had official engagements at school. Sampong (2009) study in Ghana found that only 17.1% of the students were satisfied with the contact they had with their tutors, and tutors agreed that they did not have a time block allocated for one-on-one contact with students during the biweekly face-to-face sessions at the study centers. The study also found that course modules were not properly edited, revised, and distributed. Sometimes, students did not receive their study materials at the beginning of the semester. It is therefore evident that learners' experiences and perceptions of learner support services provided has a bearing on the quality of distance education offered.

Distance education in Kenyan public universities

In the Kenyan context, universities offering distance education can be described as dual mode institutions for they conduct both the traditional face-to-face and distance education forms of instruction within the same institutions. The distance education programmes are offered both on-campus and through outreach programmes at satellite centers. On-campus students attend lecturers during the day, evening, weekends or during vacations. Outreach programmes are administered and delivered at designated satellite centers that are physically located off-campus. These centers tend to be poorly equipped and the facilitators hired are usually recruited from outside the parent university's faculty (Juma, 2008). The predominant distance education delivery model in Kenya is print based with little or no Information and Communications Technology [ICT]. Other models include institution-based model of study where residential sessions at university are conducted during vacation periods of April, August and December; mixed mode provision which is a combination of face-to-face and distance learning strategies; and satellite and web-based distance education at African Virtual University [AVU] (Juma, 2008).

Among the various programmes offered in Kenyan public universities is distance education for teachers especially B. Ed and Master of Education (M.Ed) courses. Concerns have been raised that distance education will improve the quantity but not the quality of teachers (The International Research Foundation for Open Learning [IRFOL], 2005). Juma (2004) reported that some distance education programmes in Kenya have adopted behavior patterns of traditional education delivery which are inappropriate for distance education. She asserted that students in the institution based mode of delivery were not getting value for the money they paid to the universities. Among the key areas of concern was the provision of quality learner support services. It is against this background that the study sought to investigate learners' perception of support services provided in distance education with specific reference to students pursuing B. Ed degree programme at Kenyatta University.

The study was guided by the following research questions:

What are the demographic characteristics of the learners in the B. Ed degree programme?

What learner support services do the distance learners experience in the B. Ed degree programme?

Theoretical framework

The study is based on Holmberg's (1983) theory of didactic conversations which he later renamed 'learning conversations' (Holmberg, 2003). The theory hinges on the fact that the instructor and the students in distance education are physically separated and seek a means of remedying the fundamental interaction gap between them. To Holmberg argues that it is feasible to recreate the

learner support and learning provisions of traditional classroom in distance education. This is critical in an effective distance education programme considering that distance education learners with previous conventional learning experiences expect to get similar experiences in distance education (Holmberg, 1983). Robinson (2004) outlines the key elements of learner support to include dialogue between learners and support agents, individual or group face-to-face tutorials, peer contact, feedback to students on their academic progress, well organized and coordinated study groups and centers, and access to libraries, laboratories and equipment. Tait (1995) also incorporated counseling services for students. Other provisions to support learning in distance education include provision of pre-produced course materials, regular feedback on learning progress and support that is incorporated within the course materials and tutorial sessions (Robinson, 2004). Holmberg (2003) maintains that when learner support services are present in the distance learning process, they lead to increased motivation to continue pursuing education at a distance. The services also increase learning pleasure and largely contribute to successful programme completion results among the students. This study therefore employed Holmberg theory to assess students' perception of learner support provided by the institution and particularly, the experiences of students enrolled in the B. Ed programme at Kenyatta University.

Methodology

The study adopted descriptive survey research design. The survey population consisted of 750 third and fourth year B. Ed students. Third and fourth year students were selected because they had adequate knowledge on their programme compared to first and second year students. Three hundred students (40.0% of the survey population) in the August residential session participated in the study. The students were randomly selected. Two hundred and seventy nine students (93.0%) completed and returned the questionnaires developed by the researchers. The questionnaire collected demographic data which included gender, age, marital status, and whether the student was in employment before joining the course. Data on learner support services were collected using eleven items developed on a five point Likert type scale. Data were analyzed using descriptive statistics.

Study findings

Demographic characteristics of the respondents

Demographic data of the respondents was sought in order to familiarize the researchers with the general characteristics of the learners. Their characteristics make up an essential and central element in the provision of learner support services in distance education. The data obtained from the study is summarized in table 1.

Data summarized in table 1 revealed that majority of the students (62.8%) were males. Most of the students (90.0%) were above 36 years old and married (88.7%). In line with Salih (2003) findings, the programme was serving adult learners who need flexibility of time and place to avoid disruptions of work and family life. The learners therefore needed learner support services that provide them with a chance to pursue education without interfering with their social and professional responsibilities. Almost all the students (91.1%) were previously trained as primary school teachers. According to Odumbe (2008), the two years primary teachers' training course has been found inadequate to equip teachers with skills and knowledge in all the seven subjects taught in primary schools in Kenya. The distance education programme therefore presents an opportunity for the primary school teachers to upgrade their academic qualifications. The programme also increases the number of B. Ed graduates. The graduates teach in primary, secondary and tertiary institutions unlike primary school teachers.

Table 1
Demographic characteristics of the respondents

Demographic characteristic	Labels	Frequency	Percentage
Gender	Female	102	37.2
	Male	172	62.8
	Total	*274*	*100.0*
Age	26-35 Years	27	9.9
	36-45 Years	149	54.6
	46-55 Years	94	34.4
	56 years and above	3	1.1
	Total	*273*	*100.0*
Marital status	Single	25	9.1
	Married	243	88.7
	Separated	4	1.5
	Windowed	2	0.7
	Total	*274*	*100.0*
Whether in formal employment	No	14	5.2
	Yes	255	94.8
	Total	*269*	*100.0*
Nature of training before enrolling in the programme	Diploma in Education	24	8.9
	Primary school teacher training	247	91.1
	Total	***271***	***100.0***

Students' perception of the support services at the University

The students were provided with a list of possible learner support services that they experienced at the University and asked to rate them as 1) Very good, 2) Good, 3) Fair, 4) Bad and 5) Very bad. The data obtained and summarized in table 2 revealed that most of the students (58.2%) rated the provision of face-to-face sessions within the range of 'very good' to 'fair' suggesting average or satisfactory provision of face-to-face sessions. According to Usun (2003), most distance learners are new to distance learning and associate formal learning with being taught physically. It is therefore imperative that designers of distance learning should hold face-to-face tutoring sessions in order to simplify the learning process, make it seem attractive for the learners, improve the learning quality and to meet the educational demands of the students (Moenikia, Farajollahi, Dortaj & Sarmadi, 2010). The programme has therefore made a deliberate attempt to provide satisfactory face-to-face sessions in order to alleviate the problem of isolation often experienced by distance students. The study also found that majority of the students (61.3%) perceived the provision of assistance/advice for examinations within the range of 'very good' to 'fair' suggesting satisfactory provision of the service. The data also revealed satisfactory provision of regular and detailed academic progress with 56.6% of the students rating the service within the range of 'very good' to 'fair'. According to Pimentel and Omar (2007), feedback on academic progress helps students and instructors know and deal better with the learning gaps.

Specifically, the students can use the information to monitor their progress, and through comments from the instructors, realize their weaknesses and strengths.

Most of the students (55.5%) perceived the opportunity for out of class contacts with instructors within the range of 'bad' and 'very bad' suggesting limited provision of the service. Limited out of class interaction with the instructors may be explained by the technology media adopted in delivery of distance education in the programme – the print media. Asked to rate their experiences with timely supply of course modules, majority of the students (77.0%) rated the service within the range of 'bad' to 'very bad'. The students were therefore not satisfied with timely supply of course modules. The finding concurs with Sampong (2009) study in Ghana and Nihuka and Voogt (2009) study in Tanzania where it was found that the distance learning institutions had difficulties in timely delivery of study materials. According to Dimri and Chaturvedi (2009), the pace of learning in distance learning is determined by timely receipt of study materials. The instructor, the instructional strategy and methods are subsumed into the study materials that are designed as self-directed learning guides to the students (Yang, 2008). The finding of the study raise serious questions on the quality of learner support in the programme considering that academic learner support in distance learning is often incorporated within the course materials whose timely delivery to the students was poorly rated.

Asked to rate the handling of students' queries by administrative staff in the satellite centers, most of the students (52.2%) rated handling of students' queries by administrative staff in the satellite centers within the range of 'bad' and 'very bad'. Handling of students' queries by administrative staff in the satellite centers was therefore unsatisfactory. According to Kimani, Kagira and Kendi (2011), the most important determinant of service quality is administrative quality. Administrative quality is concerned with elements such as keeping accurate records, providing prompt services, courtesy, providing individualized attention to the customers, showing sincere interest to students' needs, proper communication and having adequate knowledge of systems and procedures. Apparently, the students appeared not satisfied with the quality of the administrative staff. The finding concurs with Obioha and Ndidi (2011) study in National Open University of Nigeria. The study found that the most serious problem identified by the students was the administration of satellite centers by staff that lacked sufficient experience in education administration. Handicapped by inexperience, the staff could not develop, maintain and manage outstanding distance learning programmes.

In terms of stocking of libraries, the students were not satisfied with the stocking of libraries with slightly above half of the students (53.4%) rating the support service in the range of 'bad' and 'very bad'. It is therefore not surprising that Gor (2012) study on library use among distance education students in the University of Nairobi found that majority of the students had never used the library facility. Asked to rate the quality of accommodation and catering facilities provided during the residential sessions, most of the students (50.7% for accommodation and 52.1% for catering) were not satisfied with the provision of the services. The findings raise questions on the quality of students' life during the residential sessions. Provision of poor quality accommodation and catering may be explained by the University conducting the face-to-face sessions in hired secondary school facilities some with standards below the expectations of the learners. The findings concur with Obioha and Ndidi (2011) who found that distance learning students experienced accommodation problems during residential sessions. This was occasioned by the institutions either operating in hired structure or being hosted by low quality institutions. According to Obayi (2007), no effective learning can be achieved in an environment that is not conducive. Opportunities for co-curricular activities (81.0% of the students rated the opportunities as 'very bad') and provision of counseling services (59.2% of the students rated the services as 'very bad') were the worst rated learner support services at the University. Kangai, Rupande and Rugonye (2011) contend that academic, social and career guidance and counseling

are a critical component of learner support services. The services were not adequately provided in the programme. This could lead to anxiety among the students especially in an environment where most of the learner support services examined in the study were lowly rated.

Table 2
Students' rating of the learner support services at the University

Learner support service	Rating					
	1	2	3	4	5	Total
Provision of face-to-face sessions (n=273)	44 (16.1%)	56 (20.5%)	59 (21.6%)	55 (20.2%)	59 (21.6%)	*273 100.0%*
Assistance/advice for examinations (n=274)	38 (13.9%)	51 (18.6%)	79 (28.8%)	50 (18.3%)	56 (20.4%)	*274 100%*
Provision of regular and detailed report of academic progress (n=262)	41 (15.7%)	52 (19.9%)	55 (21.0%)	56 (21.3%)	58 (22.1%)	*262 100.0%*
Opportunity for out of class contacts with instructors (n=276)	22 (7.9%)	42 (15.2%)	59 (21.4%)	59 (21.4%)	94 (34.1%)	*276 100.0%*
Timely supply of course modules (n=270)	6 (2.2%)	13 (4.8%)	43 (15.9%)	70 (25.9%)	138 (51.1%)	*270 100.0%*
Handling of students' queries by administrative staff in the centers (n=272)	33 (12.1%)	45 (16.5%)	52 (19.1%)	74 (27.2%)	68 (25.0%)	*272 100.0%*
Stocking of libraries (n=255)	23 (9.0%)	31 (12.2%)	42 (16.5%)	65 (25.5%)	94 (36.8%)	*255 100.0%*
Quality of accommodation facilities provided during residential sessions (n=258)	33 (12.8%)	42 (16.3%)	52 (20.2%)	53 (20.5%)	78 (30.2%)	*258 100.0%*
Quality of catering facilities provided during residential sessions (n=259)	29 (11.2%)	35 (13.5%)	60 (23.2%)	57 (22.0%)	78 (30.1%)	*259 100.0%*
Provision of guidance and counseling services (n=245)	8 (3.3%)	18 (7.3%)	21 (8.6%)	53 (21.6%)	145 (59.2%)	*245 100.0%*
Provision of opportunities for co-curricular activities (n=247)	8 (3.2%)	5 (2.0%)	12 (4.9%)	22 (8.9%)	200 (81.0%)	*247 100.0%*

Conclusions

The study concluded that majority of the distance education students pursuing the B. Ed degree programme were adults who needed flexibility of time and place to avoid disruptions of work and family life. The programme attracted primary school teachers who wished to upgrade their academic and professional qualifications. Their background characteristics presented a strong case for provision of quality learner support services to cater for their inexperience with distance education. The services would also ensure that they pursued education without interfering with their social and professional responsibilities. Despite the importance of learner support services in distance education, the students perceived provision of learner support services rather unsatisfactory. Out of the eleven learner support services examined in the study, only three were found to be satisfactory. The learner support services that were found satisfactory include

provision of face-to-face sessions, assistance/advice for examinations, and provision of regular and detailed report of academic progress. Most of the examined support services were perceived as unsatisfactory. Such services include opportunity for out of class contacts with instructors, timely supply of course modules, handling of students' queries by administrative staff in the centers, stocking of libraries and quality of accommodation facilities provided during residential sessions. Opportunities for co-curricular activities and provision of counseling services were rated as the worst learner support services. The B. Ed programme therefore did not have adequate quality learner support services raising questions on its quality.

Recommendations from the study

Based on the findings and conclusions from the study, the following recommendations were made:

The University should consider an almost total overhaul in the provision of learner support services. Key among the areas of focus should be timely supply of study modules, handling of students' queries by administrative staff in the satellite centers, opportunities for co-curricular activities, and provision of guidance and counseling services.

The University should consider improving on the quality of students' life during the residential sessions considering that the students are adults likely to be very sensitive to the accommodation and catering services provided. Proper vetting of the capacity of the host institutions to provide quality services should be done.

The University should consider training the staff in the satellite centers. The training should largely focus on service delivery guided by the University's service delivery charter.

The government should fast tract the implementation of ICT policy. This would ensure that ICT infrastructure is available even in remote villages. This may serve to promote the adoption of online distance learning as opposed to the current print based mode of delivery of distance education with little or no ICT.

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Editor's Note: This is a valuable study to further the dialog on how best to help disadvantaged students. The cross-cultural aspects contribute to this dialog.

Educating Students in Poverty:
Cross-cultural Learning from Online Case Study Discussions with American and Chinese Students

Yali Zhao, Peggy A. Gallagher and Nannette Evans Commander
USA

Abstract

Teachers with the least amount of experience often find themselves teaching in high-poverty schools (Carey, 2004), environments that bring special challenges that are difficult for even the most seasoned teachers. Teachers who work with students in poverty may find it helpful to engage in self-reflection as well as sincere dialogue with others about their beliefs and practices regarding educating students from backgrounds of poverty. Yet there is little informed discussion of poverty in the U.S. mainstream discourse on education (Osei-Kofi, 2005), let alone research on the topic cross-nationally. Using qualitative research methods, this study examined how online case study discussions regarding educating students in poverty fostered enhanced cross-cultural learning and teaching strategies for American and Chinese graduate students. Results revealed five major themes: 1) American and Chinese teachers had shared experiences and visions for educating students in poverty; 2) Teachers' belief in compassion and respect was deemed as the keys to the success of teaching students in poverty; 3) Cultures promoted collectivist and/or individualist teaching strategies; 4) Teacher expectations for students in poverty impacted student success; and 5) The online case study discussion enhanced participants' knowledge of cross-culturally responsive pedagogy. Results indicated that students perceived the online discussions promoted their cross-cultural learning regarding teaching students in poverty, an important area of concern in China and the U.S.

Keywords: online case studies discussion, students in poverty, China and the U.S.

Introduction

Poverty has always been present, both in rich and poor nations around the world (Shah, 2010). Data from the National Assessment of Education Progress indicate that American students' performance in reading and math is highly associated with poverty status (Ladd & Fiske, 2011). The same is true across other nations. The findings of the Programme for International Student Assessment (PISA, 2009) regarding 15-year-old students' reading, mathematical, and scientific literacy in the U.S. and 13 other countries show that students with lower economic and social status had far lower test scores than their more advantaged counterparts within every country. Educating students in poverty is a difficult endeavor in any country and an important issue for teacher education.

The U.S. is the world's most advanced and highly developed country, yet it is not immune from concerns of poverty. According to the recent survey report of the U.S. Bureau of the Census (DeNavas-Walt, Proctor, & Smith, 2012), 46.2 million people live in poverty in the U.S. The poverty rate in 2011 for children under age 18 was 21.9 percent, with poverty rates for African Americans (27.4%) and Hispanics (26.6%) higher than for non-Hispanic whites (9.9%) and Asians (12.1%). Seefeldt, Abner, Bolinger, Xu, and Graham (2012) examined trends across the U.S., and found that the proportion of impoverished people in the U.S. rose by 27 percent between 2006 and 2010, with Latinos/Hispanics, African Americans, children, and female-headed households among the most affected. As a developing country with the largest population in the world, China has traditionally been characterized as having unbalanced development, with a large

concentration of poverty-stricken families in the rural areas. The sustained growth of China's economy in the past three decades since economic reform in the late 1970s and the government's rural poverty alleviation program have largely increased average living standards and lifted many rural people out of poverty. According to a recent white paper released by the Chinese government (The Information Office of the State Council of China, November 16, 2011), China's rural population of persons in poverty fell from 94.22 million at the end of 2000 to 26.88 million by the end of 2010. Even with such laudable achievements, rural poverty continues to be a prominent concern in China (Glauben, Herzfeld, Rozelle, & Wang, 2011; Ha, Yi, & Zhang, 2009; World Bank, 2009). Meanwhile, urban poverty has risen as a new issue in contemporary China due to massive unemployment and the large scale migration of rural residents to urban areas (Park, Albert, Wang, & Dewen, 2010). There are a growing number of researches who have addressed poverty and inequity in education in rural and urban areas of China in the past decade (Brown & Park, 2002; Fu, 2005; Yao, 2009; Wu, Zhang, & Zhang, 2008).

Educating students in poverty

As in many countries, those teachers in the U.S. and China who have the least amount of experience often find themselves teaching in high-poverty schools (Carey, 2004), environments that bring special challenges that would be difficult for even the most seasoned veteran teachers. Ruby Payne (2005, p.3), in stressing these unique challenges for teachers, states "We can neither excuse students nor scold them for not knowing: as educators we must teach them and provide support, insistence, and expectations." Those facing the difficulties of teaching students in poverty may find it helpful to engage in self-reflection regarding their own beliefs about equity and diversity through sincere and in-depth dialogues with other teachers about how to better educate these students. Yet there is little informed discussion of class and poverty in mainstream discourse on education (Osei-Kofi, 2005). Communication between teachers across countries about issues pertaining to students in poverty is even more rare.

One forum that offers a vehicle for communication between individuals from different cultural backgrounds and educational systems is computer-mediated instructional technology. Teaching students from different countries online is a feasible and desirable method to internationalize college curricula. Additionally, computer-mediated instructional technology promotes cross-cultural awareness, expands global knowledge, develops critical thinking skills, increases task engagement, and encourages reflection on educational experiences and instructional practices (Crawford & Kirby, 2008; Gunawardena, Lowe, & Anderson, 1997; Garner & Gillingham, 1996; Kim & Bonk, 2002; Merryfield, 2003). Asynchronous online discussions in particular can be effective in motivating students from different nations to interact and thus foster cultural awareness (Commander, Zhao, Gallagher, & You, 2012; Little, Titarenko, & Bergelson, 2005).

Online discussions may be centered on case studies, engaging stories with a detailed description of a particular real life situation (Kreber, 2001). This pedagogical strategy is most commonly seen in the teaching of medicine, law, and business (Barkley, Cross, & Major, 2005), but case studies can be an effective teaching tool in education as well. Research indicates that case studies offer a number of benefits, including bridging the gap between theory and practice, and between real world issues and students' personal experiences; increasing students' interest; engaging students in student-centered activities and cooperative learning; promoting development of communication skills and multiple perspectives; strengthening students' critical thinking and problem solving skills; and making interdisciplinary connections (Baillie & Burton, 2003; Barkley, Cross, & Major, 2005; Kreber, 2001; Lapadat, 2002). Case studies also provide experiential learning for adult learners (Kolb, 1984) and can be particularly effective in fostering growth in critical thinking and self-directed learning (Kreber, 2001). The educational activities demonstrated in the case study are imbedded inherently in its particular sociocultural context.

Therefore, examining and discussing a classroom case study from another country may provide students who may not be able to enter the classroom in another nation with the opportunity to become immersed in the "other" culture and better understand its educational practice.

We are not aware of any study that has utilized cross-national online discussion of classroom case studies to enhance participating teachers' cross-cultural knowledge and practice regarding students in poverty. The purpose of this study was to explore how participation in online discussions of a case study regarding educating students in poverty in China promoted cross-cultural understanding of common educational issues and instructional practices in working with students in poverty by students from the U.S. and China. We utilized a case study online discussion forum describing a Chinese classroom teacher who made strenuous efforts to educate students in poverty. Two key questions guided the research: 1) What do American and Chinese students perceive as the most important things they learned from the online case study discussion on poverty issues 2) In what ways did the online case study discussions promote American and Chinese students' cross-cultural understanding of teaching and working with students in poverty?

This research is guided by sociocultural constructivism that views social interactions as the critical component of learning and cognitive development (Driscoll, 1997, Vygotsky, 1986, & Lave and Wenger, 1998). In cross-cultural online discussions, students participate in student-centered meaningful conversations to develop new knowledge, perspectives, and a shared body of knowledge, encompassing the principles of constructivism and social interactions. This research is also informed by the theory of critical pedagogy (Freire, 1970) where the importance of the learners' ability to think critically about their education situation and experience is stressed. Finally, online case study discussions when viewed as transnational, cross-cultural experiential learning may contribute to culturally responsive pedagogy that values the salient culture of each student within the learning community (Ladson-Billings, 1994; 1995; Merryfield, 2003).

Methods

Research context and participants

Participants in this study were 27 American graduate students and nine Chinese graduate students enrolled in an online section of a learning theory class in an urban research university in the southeastern United States. There were 4 male and 23 female American students, with an average age of 29. Sixty-seven percent of the American students had taken an online course before, and 70% were full time students. Among the nine Chinese participants, six participated online on a voluntary basis not for credit from China and three participated online not for credit while in America as exchange students. There were two male and seven female students with an average age of 26, and none had taken an online course before in China.

The case study examined in this study is one of four case studies used in a larger study that looked at student learning. The case study is titled, "Minmin's Smile: Working with Poverty Students" (see Appendix A). "Minmin's Smile" is an authentic story about a Chinese classroom and a teacher who worked with a student who lived in poverty with his grandmother who was illiterate. This case study, though embedded in a Chinese context, represents many sociocultural and behavioral issues prevalent in both Chinese and American educational systems, such as poverty, classroom management, parental involvement, self-esteem, and academic success.

Students were formed into six groups for the case study online discussion, with each group having five to six American students and one to two Chinese students. Participants were given specific guidelines for reading and responding to the case study as well as other participants' responses. Specifically, participants were encouraged to look at the situation through the eyes of an educational psychologist and consider what theory or principles of learning were represented in

this case. They were also asked to describe the strategies the teacher used in the Chinese case study and consider the questions in Appendix B. Participants were encouraged to support their comments using concepts from the textbook, observations, class assignments, readings from the literature with which they were familiar, reliable web resources, and personal experiences related to this case study.

Data Collection and Data Analysis

Data sources included student transcripts of initial postings, follow-up postings, and open-ended survey responses to the case study discussion. The content management system utilized in this study, Ulearn, tracked entries during discussions and indicated a total of 159 postings and responses, an average of 26 postings for each of the six groups. The average length of the postings and responses varied, with the majority of the participants providing two pages of detailed initial response to the case study and long or short discussion postings to other students' responses. Although it was required that students post one initial response to the case study and a minimum of three follow-up postings to other students' postings, this Chinese case study aroused great interest among the students, many of whom not only wrote long thoughtful responses to the case study and other students' postings, but also went further by reading and sharing additional resources about Chinese and American education.

To answer the research questions, we used the content analysis and constant comparative method (Glaser &Strauss, 1967) to code the postings and determine reoccurring themes. This was conducted in multiple steps. First, we read through each student transcript of initial postings to identify themes and patterns merging from the data: e.g., learning theories and unique culture represented in the case study, perceived similarities and difference of instructional strategies, etc. Next, we examined and compared students' follow-up postings in each discussion group and across the six discussion groups to identify overarching themes, patterns and discrepancies. We then examined descriptive responses of students to a survey of five open-ended questions on their experience in participating in this online discussion (see Appendix C). All responses were reviewed using the same content analysis and constant comparative method to determine themes. Finally, themes generated from the open-ended questions were compared with themes developed from the online discussion data to confirm or disconfirm these themes and patterns.

Results

Data analysis of American and Chinese participants' initial postings, follow-up postings as well as their responses to the open-ended questions reveals five recurring themes regarding participants' learning experience in the online case studies discussion as well as their perceptions and strategies of educating students in poverty. These include: 1) American and Chinese teachers had shared experiences and visions for educating students in poverty; 2) Teachers' belief in compassion and respect was deemed as the keys to the success of teaching students in poverty; 3) Cultures promoted collectivist and/or individualist teaching strategies; 4) Teacher expectations for students in poverty impacted student success; and 5) The online case study discussion enhanced participants' knowledge of cross-culturally responsive pedagogy.

Shared Experiences and Visions for Educating Students in Poverty

The case study illustrated how a caring Chinese teacher worked diligently with a student who struggled financially, socially, emotionally, and academically and elicited help from the student's peers and his illiterate grandmother. Although the scenario occurred in a Chinese classroom, almost all American participants were able to relate to the case as evidenced by their initial postings and follow-up discussions. American participants unanimously expressed empathy with the Chinese student in the case study and many acknowledged that similar struggling students existed in their own classrooms, as one American student stated, "This story reminded me of a

student at our school whose mother died suddenly when she was in the first grade. . . She was suddenly left alone with her grandparents."

In sharing their stories, participants recognized that teachers in both countries face challenges in working with students in poverty. One American student noted, for instance, "While Minmin's story seems challenging to any teacher, there are many students in American classrooms today who struggle with similar uncontrolled home lives that emotionally, socially, and academically affect their performance in school." When similar stories were shared and empathetic comments were made by American participants in all six-discussion groups, Chinese participants expressed shock because they thought that poverty was rare in the U.S., a country they deemed as among the most wealthy and advanced in the world.

Most of the participants expressed their belief that despite the differences in the educational systems and cultures of China and the U.S., similarities outweighed differences in regards to teachers' caring for students and wanting strategies to assist challenging students. Many participants stated that the honest discussion about students in poverty helped them realize these similarities. For instance, one Chinese participant stated in his survey response "Although there is a big difference between China and America…Our final purpose is to educate children well. All the American and Chinese teachers are the same, that is, we all use various teaching strategies and methods, and we are all going to the same destination to help our students."

Compassion and Respect– Universal Keys to Success

Just as the Chinese participants in this study all applauded the Chinese teacher's practice, American participants, too, spoke highly of the Chinese teacher's efforts to help the student in the case study. They considered her as a role model of how a teacher's care and compassion could make positive changes to a "hopeless", "problem" or "at-risk student"(participants' words). The American students expressed that the effective strategies the Chinese teacher used could apply across cultures, as summarized in two students' postings below:

> *The strategies that are listed in this case study can be used effectively in both American and Chinese classrooms. Instead of the teacher giving up on Minmin, the teacher made sure to get to know the student in and out of the classroom. For the teacher to include Minmin's grandmother and write a daily report about him, it shows assiduous efforts by the teacher to do everything possible for the student. The teacher showed love and care through her actions: walking home, giving a jacket, and lending an umbrella. . . . Teachers in both the American and Chinese classrooms should take the time to get to know the student instead of automatically labeling them a trouble child. It is very crucial for teachers to establish a relationship with the students.*

> *I agree about the effectiveness of empathy and compassion towards students, and its validity across cultures. . . It is a teacher's role and priority to instill these feelings of accomplishment and confidence in their students, whether they live in the United States, China, or Australia.*

Many American participants, while affirming the compassionate strategies that the Chinese teacher employed, shared their own experiences with working with students in poverty and their successful stories of making a positive impact on these students through their compassion and commitment. For example, one student stated

I have been in a similar situation before, and handled it in a parallel way. One of my students came from a very low-income family, and his mother stayed up every night partying. He would come to school barely awake, starving, and completely antisocial. Many days I would give him a healthy snack that I brought from home, and spent a lot of time with him one on

one while he was working on his writing. He responded very well to positive feedback, and needed the attention and love that he did not receive at home…

Participants also expressed their willingness and determination to continue their commitment to help struggling students regardless of their culture, as one American student reiterated,

> *It is my goal to teach at-risk students, the ones that struggle most in school and have rough home lives. Viewing students as troublemakers is often an easy way out, rather than taking the time to invest in their lives and determining why they are struggling and what they genuinely need. Making students feel valued and competent is vital in being an effective teacher, motivating students to work towards their highest potential.*

This discussion about teachers' respect and compassion to students in poverty triggered a related discussion topic about the importance of teacher, student, and family relationships in educating "disadvantaged" students in Chinese and American cultural contexts. In particular, participants admired the respect that occur between students and teachers and lamented that too much emphasis on individualism in the U.S. can result in a lack of respect and rapport between teachers and students, and between schools and family members, particularly those who are elderly. One American participant noted

> *Your point about the difference in students' attitudes towards adults between American and Chinese students is a good thought. Sometimes I feel like students in America lack respect for their teachers, but I think it's partially the result of the society in which they are raised. As a whole, I don't think Americans emphasize the importance of respect enough (and I say this from the standpoint that respect is a two-way street, and not enough teachers respect their students in the way they want their students to respect them). I think a little more respect from students and teachers would make a difference in America's culture.*

Both American and Chinese students thought that the strategy of getting Minmin to teach his grandmother to read would only work in China due to the strong Chinese cultural demands that young people show respect to their elders. It makes sense that Minmin would become motivated to teach his grandmother to read as one Chinese student explained:

> *think the strategy of getting Minmin to teach his grandmother how to read would only work in China because the Chinese place a different value on their elders than Americans do. From a young age, Chinese children are taught to honor their elders and many times the children take care of their parents. So, it makes sense that Minmin would become very serious about completing his schoolwork to help his grandmother learn to read.*

Additionally, many Chinese students added that the higher literacy rate of older people in the U.S., made it less likely that young people in the U.S. would teach an older person, but that in China, this would be common, especially in the rural areas where elderly people may have received little schooling.

Individualist vs. collectivist teaching strategies

A topic that especially triggered common interest and debate among the six discussion groups was whether the collectivist strategies employed by the Chinese teacher would be applicable to U.S. classrooms. In the case study, the Chinese teacher solicited collective cooperation from the whole class to help Minmin. All nine Chinese participants complimented the Chinese teacher's practice in recruiting others to assist the struggling student and recognized that similar strategies had been used by their own teachers. They applauded this "collectivist" practice and expressed willingness to act likewise as one noted "From my perspective as a Chinese teacher, I would do the same as Minmin's teacher. The teacher's strategies are perfect." Other Chinese participants went further to explain that the collectivist strategies would work well in a community-based Chinese culture and classroom, where collective success is traditionally deemed more important than individual

success. Another Chinese participant explained that the Chinese schools' typical practice of seating arrangements for students (having struggling students sitting with successful students), consistency of classmates and teachers over several years, and the long-term resulting friendships were critical factors in why collectivist strategies work well in Chinese classrooms.

Unanimously, Chinese students commented that it was pragmatic for Chinese teachers to elicit collective efforts to finish a class task, to have students help each other, or collectively to help one individual student because the social norm emphasizes collectivist spirit and success, friendship, and mutual care. American participants were not in agreement as to whether such collectivist strategies would work in American classrooms although most expressed appreciation of the teacher's collectivist strategies in the Chinese cultural and educational context. About one fifth of the American participants' comments indicated that the emphasis on individualism in the American culture might make it difficult to implement a collectivist approach. An example of this type of comment is:

> *As much as I desperately want to instill the type of collective teaching method used for Minmin, where the whole class is involved in supporting one of its members, it seems unlikely that as much of the laudable collectivism mentality that this teacher could be used as readily here in the States. Students here might wonder why they had to give this other student so much attention and beyond that, complain that they were not getting enough! Such is the challenge with individualists like Americans…*

Similar comments were made by another American student who further argued that American culture puts so much emphasis on individual motivation that it would be challenging for American teachers to follow suit:

> *I agree with you that today's American culture would offer little support for this type of approach. We place too much of the responsibility for motivation on the individual students and their guardians. . . I think Minmin's teacher did a nice job but our "individualist" culture in America would definitely make it a challenge.*

Nevertheless, the majority of the participants agreed that the inclusion of cooperative class efforts and the student's home culture were crucial in working successfully with students in poverty in both Chinese and American contexts. Many American participants went further to talk about new immigrant students in their classrooms who may be struggling with issues of poverty and/or learning a new language. It is noteworthy that most of the participants expressed a desire and willingness to embrace cooperative strategies and students' home cultures in order to motivate students and pursue culturally responsive pedagogy in their classrooms by following the example of the Chinese teacher as well as other role models they saw in their own lives. One American student noted,

> *Minmin's story is one that my mother tells me at least twice every year - she always has at least 1 or 2 students that are like him. They come from a troubled background and often act out at school, but once she shows them that she cares about them and that she is there to help them, they usually turn around for the better…she does communicate with the parents to let them know she is concerned for the students and wants to know what is going on at home that can be affecting them. It is important to set-up this connection with the family and to let the student know that we, as teachers, are here because we care for them and want them to succeed.*

Another student added,

> *The teacher took the time to explain the situation to his grandma in order to come up with a plan for helping Minmin… He [Minmin] was motivated to show his grandma what he was learning in school. I think this is a great way to help a student who does not speak the given language at the school as his first language…*

Teacher Expectations of Students of Poverty

Another common and interesting topic running through all six groups was that of teachers' appropriate expectations of students in poverty. Participants all approved of the Chinese teacher's practice in using positive reinforcement to increase desired behaviors; however, participants seemed to disagree on whether the Chinese teacher held appropriate academic expectations of the student in poverty and whether effective strategies were used to further the student's academic progress. Some American participants expressed concerns about the teacher's lowered expectations for Minmin and expressed different opinions as to how the teacher should proceed to help Minmin obtain academic achievement with higher expectations. One example is:

> *I did not like how Minmin's teacher lowered her expectations for him. It is crucial that teachers expect high expectations for all students, because when they do, student will aim to reach them (High Expectations). I would not allow Minmin to not turn in homework though. If I felt the homework the entire class was receiving was too challenging for him I would provide him differentiated homework, and scaffold his assignments so that he was able to experience success building his skills up to the level of the class.*

Nevertheless, more than half of the participants agreed with the Chinese teacher's practice and expressed that the teacher had appropriate expectations toward the student and adopted proper and reasonable teaching strategies, as one American student argued,

> *I don't think the teacher lowered expectations by giving Minmin less work to complete. I think the teacher was simply meeting Minmin where he was, and giving him an individualized education. Hopefully by using the technique of gradually giving Minmin more and more tasks to complete that increase over time, he will feel a sense of accomplishment, gain more self-efficacy and develop a love of not only at school, but of learning altogether.*

Statements such as this one were common across all six discussion groups. Many students shared similar insights in their group discussions about teachers' expectations of struggling students. They argued that teachers should develop a better knowledge of what causes some students to have learning problems and accordingly make more flexible and realistic expectations of students and evaluate their progress over time. In supporting the group discussions about how teachers' efforts could have a positive impact on students who struggle, one participant shared her perspective about how critical it is for teachers to form realistic yet flexible expectations:

> *Minmin's teacher understood that it was okay to alter the structure of lessons to fit what Minmin needed at the time. Sometimes teachers mask unrealistic expectations for students who may have severe deficits or gaps in learning, like Minmin, and they call it "having higher expectations for all students. "Perhaps it's best when teachers simply assess students by measuring their growth over time. . . flexibility is a must to create an environment of support and concern for all students.*

Many participants offered detailed, alternative, yet constructive suggestions on how to further assist students to achieve academic progress, for instance, tailoring Minmin's homework assignments to connect what he learns in class to what he is teaching his grandmother, teaching metacognitive strategies and study skills so that Minmin and other students can make sense of lectures and find a way to connect the information to other areas of their lives, engaging students in cooperative learning projects and activities, and using well-researched and well-practiced methods such as social learning theory and metacognition in addition to operant conditioning in her classroom. Despite the differences regarding teachers' expectations of struggling students, participants affirmed the Chinese teacher's efforts to motivate Minmin both socially and

emotionally and acknowledged the impact of such efforts on students' academic progress. They all considered it crucial that teachers reach out to students in poverty and show genuine care and empathy towards students like Minmin because, as one American student put it, "all students need to feel a certain warmth and bond with their teacher to help them feel comfortable in that environment. And as teachers, we need to address the physical, intellectual, and emotional needs of our students to have a successful classroom learning environment."

Albeit participants came from different cultural and educational backgrounds, many related the Chinese case study to their own classroom experiences in assisting students in poverty and suggested that understanding, supporting, encouraging, and affirming students in poverty rather than punishing and blaming them for failure is the key to success. The comments made by one American student were echoed by quite a number of students:

> *As an American educator, I agree wholeheartedly with the strategies Minmin's teacher used. Often when dealing with students who live in poverty, we must understand the value system they have may be different from our own.... Sometimes students such as Minmin may not be able to think of how education will pay off in the future, because their focus has been on how they will meet needs day to day. Keeping this in mind, it is important for teachers dealing with students in poverty to form relationships with all of their students. . . I found that the relationships I formed with students and their parents my first year was extremely important in helping to motivate and heavily played a role in their success.... There are some students I've taught who never even had plans to attend college, but who later began to place higher expectations on themselves because of my efforts to get to know them, much like Minmin's teacher, and truly focus on their success which helped them build their self-efficacy.*

This discussion about teachers' expectations of struggling students served as an eye-opening and informative learning experience to all participants, especially the Chinese students, who unanimously agreed that this honest and intellectual discussion with American counterparts about the common critical issue of educating students in poverty provided them with brand-new learning experiences and an inspiring perspective. One Chinese participant commented passionately in her reflection that she had never had such an honest and in-depth conversation about differentiated expectations and instructional strategies for students in poverty, even among her Chinese colleagues, and that the online discussion experience made her think more about Chinese educational policy and practice towards students in poverty or who are otherwise disadvantaged.

enhanced knowledge of cross-culturally responsive pedagogy

Many participants commented that they were delighted to have this opportunity to share real examples and classroom stories concerning challenges in educating students in poverty. They reported thoroughly enjoying the online case study learning experience with students from another country, which enabled them not only to learn more about another culture, but also to appreciate different perspectives and experiences, and then apply these shared experiences and strategies to further assist students in poverty with whom they worked, including new immigrant students in their classrooms. One American student illustrated how this enhanced knowledge helped him in working with not only with Chinese immigrant students but also students from other countries:

> *The most important things that I learned from the online discussion were confirmations and corrections of beliefs that I had regarding Asia and its culture. I took some of the great ideas from our discussions and applied them to not only my Chinese student in my class but also to my other foreign students. The graduate students from China were able to give American students real examples and explanations of Asian culture just as the American students offered great perspectives to the students in China. Everyone*

explained issues, obstacles and offered suggestions and ideas to assist American teachers educate their foreign students and vice versa.

The participant population in this current study was very diverse, composed of graduate students from different countries and of different genders, but also from different educational and cultural backgrounds. Despite these differences, the participants all reported caring about educational issues related to students in poverty as they all have such students in their classrooms. Reading and discussing a Chinese classroom case study pertinent to poverty offered the participants an opportunity to better understand the theory of culturally responsive pedagogy and how it works to motivate students in poverty, regardless of the culture or educational system. Several groups of students in fact were involved in an ardent follow-up discussion about culturally responsive pedagogy while sharing their experiences working with students in poverty. One American student described in lengthy detail about how the practice of culturally responsive pedagogy in a Chinese classroom helped her develop a better understanding of the theory and practice:

This teacher is using culturally responsive pedagogy. "…Culturally responsive appears to refer to a more dynamic or synergistic relationship between home/community culture and school culture" (Ladson-Billings, p. 467). Minmin's teacher tried to bridge the gap between home and school by concretizing learning. . . For example, by having Minmin teach his grandmother how to read, the teacher was relating what was learnt in school to real-life at home. Also, the teacher accessed Minmin's funds of knowledge by finding out what Minmin's strengths and interests were, fondness of labor work. Funds of knowledge is defined by researchers Luis Moll, Cathy Amanti, Deborah Neff, and Norma Gonzalez (2001) "to refer to the historically accumulated and culturally developed bodies of knowledge and skills essential for household or individual functioning and well-being".

Like this student, many others discussed the importance of cross-cultural understanding and the advantage of utilizing culturally responsive pedagogy to motivate struggling students to achieve progress and success. They commented that this discussion of culturally responsive pedagogy broadened their mindset and enhanced their own cross-cultural awareness. The shared passion and vision for educating students in poverty helped them realize that culturally responsive pedagogy can apply universally. Some American participants who were classroom teachers even stated that they took action to apply their learning to their own classrooms and make positive changes for their students. For example, one American student acknowledged that he had a hard time figuring out how a method such as culturally responsive pedagogy could work in a different country, but that this case study discussion experience improved his cross-cultural awareness and motivated him to pursue more cultural knowledge and relevant pedagogy in his teaching:

I found it challenging to articulate responses and attempt to think about how a method might be successful in another country because I have such a limited knowledge. However, attempting to reflect on how my choices as teacher would be seen by another culture was valuable. This reflection helped me to develop a deeper awareness about cultural sensitivity. Overall, I try to be fair and take into account each student' individuality. Now I find that when I have students from other countries I need to find out what culture it is and do some reading about it. It is important to not only know a student' surface information, but more on their cultural background.

This idea was echoed by several other students who also expressed that this experience enabled them to become more conscious of and more willing to explore and include their students' culture in their classrooms. Further, they commented that they developed more interest in learning about perspectives of their counterparts in a different nation. As one

American student summarized in his open-ended survey, "I found myself looking for the Chinese student responses because I wanted to learn more about their culture and how their opinions were similar or different than mine culturally."

Conclusions

Findings of this study reveal that both American and Chinese participants perceived the online discussion of a Chinese case study as substantially beneficial to their understanding of different cultures, educational systems, and instructional practices in working with students in poverty. Participants believed that this experience offered them not only a meaningful channel to talk about educating students in poverty, but also an exciting experiential learning opportunity to intentionally "observe" and "critique" educational practice in another nation, without physically crossing the borders. These findings affirm previous research that demonstrates computer-mediated instructional technology can be an effective medium to enable education students across nations to develop cross-cultural knowledge and mutual understanding of respective culture and education without the limitations of time, space and cost (Daggett, 2010; Kim & Bonk, 2002; Merryfield, 2000, 2003; Tutty & Klein, 2008). The asynchronous online discussion of a case study between American and Chinese graduate students proved to be an effective vehicle to foster direct and sincere dialogue about common educational issues, to share experiences, and eventually to find constructive solutions to educating students in poverty.

Despite differences in their linguistic, cultural, and educational backgrounds, many American participants were able to relate the Chinese case study of educating a student in poverty to their own classroom experiences, understand and appraise the Chinese teacher's efforts, and appreciate the chance to discuss issues of working with students in poverty. Participants from both countries were pleased that the real life scenario and consequent rich discussions with colleagues helped them develop positive attitudes towards the students in poverty or who are otherwise disadvantaged, and helped them build new knowledge and skills to better serve the students they teach.

Participants 'responses indicated that the case study and the follow-up discussion enabled them to reflect in-depth about issues of poverty and its causes, allowing them to reflect more on their role as a gate keeper and responsibilities as a caring teacher. Most participants indicated that the discussions strengthened their belief that as teachers they need to communicate more with the student's family, find and value each and every student's strengths, display genuine care and respect, and utilize culturally responsive pedagogy just as the Chinese teacher did in order to support students in poverty to reach their highest potential and academic success. The participants were convinced that teachers' compassion and respect for students who struggle are fundamental to their success, regardless of culture and nationality. They agreed that these caring strategies were the universal key to promote positive change for students in poverty, whose lives are often battered through no fault of their own, and that teachers must be willing to face the challenges and be dedicated to working for the well-being of all their students.

The case study discussion experience allowed American students not only to gain in-depth knowledge of Chinese education and culture, but also to develop respect for their Chinese counterparts. Researchers have pointed out that cooperative group learning strategies and peer assistance fit well with the communal cultural systems of many African, Asian, Native, and Latino American groups (Gay, 2000; Spring, 1995). The Chinese teacher's concerted efforts with his class and the family of the student in poverty enabled American students to contextualize the Chinese educational system, to better understand how Chinese collectivist culture functions in an educational environment, and how Chinese culture that demands more respect for teachers and elders can facilitate student learning. Students noted that such collectivist strategies could be challenging to implement in the U.S. where individualism and privacy are stressed. Nevertheless,

all American participants expressed sincere appreciation of the Chinese students' voluntary participation in this online discussion as well as the Chinese teacher's deliberate efforts in the case study to offer social, emotional, and academic support to the student in poverty.

Similarly, Chinese participants reported profound learning about American culture and educational practice through their interactions with American students, in particular American participants' positive comments on their postings, honest sharing of personal and classroom stories, critiques of educational practice, and discussions on constructive teaching strategies to educate students in poverty. The Chinese students reported that this unique experience enabled them to develop a more realistic perspective of American education as well as a genuine respect for American teachers' efforts in assisting students in poverty or/and in other challenging life situations, including new immigrant students who are struggling with a new language and culture. In sum, this online discussion experience provided a reciprocal learning experience for all participants and allowed them to develop mutual understanding of and genuine respect towards persons who they otherwise would not have met in life and who come from different cultural and education backgrounds and different parts of the world.

Implications

An important finding from this study is that reading and discussing a case study with students from another country encouraged reflections of participants' own educational practices. Students reported that this experience not only helped them develop more in-depth cross-national knowledge of other educational systems and cultures, but also improved cross-cultural knowledge within their own country's participants. This interactive learning experience helped participants in both countries become more critical and reflective about their education as well as their experience of working with students in poverty.

It is important to point out that these findings show the asynchronous nature of online discussion of classroom case studies can affect student learning across cultures in that it allows students to have substantially more time to read a case study, write their thoughts, and react to other participants purposefully and meaningfully. This was especially important for the Chinese participants as the discussions were conducted in English. It was also helpful that the participants who were native English speakers were encouraging and supportive so that non-English speaking participants felt welcome and appreciated and were willing to express their thoughts. One Chinese student in this study, for instance, noted that while she first felt hesitant about expressing herself, she later became confident in doing so due to the American students' positive feedback to her, which led to more thorough and meaningful interactions between all the students. To reduce miscommunication and language barriers, we suggest having a faculty member who is proficient in both languages available to foster meaningful interactions. In this particular study, a native-Chinese American faculty member helped select an appropriate case study and served as a language facilitator to help the Chinese students better understand the questions for discussion and complete their responses in the time requested.

Another important lesson learned from this study is the importance of choosing cases around interesting topics that are of common concern and interest across countries and cultures. Choosing such a case story will help students be focused and engaged and provide them with an opportunity to delve deeply into an important topic. The topic of educating students in poverty in the current study is a topic familiar across nations and a topic that both American and Chinese students were most interested in exploring to create caring solutions for educating our nations' children.

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Appendix A

Minmin's Smile Case Study (Jiang, 2008).

"Teacher, Minmin did not finish his homework!"

"Teacher, Minmin hit me!"

"Teacher, Minmin played games at the Internet Bar instead of going back home."

"Teacher, Minmin talks too loud!"

You could have guessed a long list of trouble Minmin would make again, and you probably have students like Minmin, who remains your headache and annoys other students in the class. Minmin had transferred to many schools. He came to our class recently but already made a lot of trouble.

Looking at this 10-year-old boy, I did not criticize him harshly and directly. Instead, I was curious about what kind of family he was from. After making many visits to his home I learned that Minmin's parents were divorced many years ago and neither of them lived with him since then. Minmin lived with his grandma, who was illiterate and worked hard to make a living by collecting and selling waste materials. Every day she was so busy collecting trash that she had no time to educate Minmin. After learning this information, I knew what I should do.

On the one hand, I tried to communicate more with Minmin's grandma. We reached an agreement about how to educate Minmin. I kept Minmin's grandma informed of every progress Minmin made in class each day and I asked her to praise Minmin more frequently. At the same time, I encouraged Minmin to teach his grandma how to read, to tell her what he learned at school and what progress he made. To accomplish this task, Minmin would have no time to go to the nearby Internet Bar to play games after school. In order to teach Grandma, Minmin started to work hard at school.

On the other hand, I wanted Minmin to feel that his teachers and classmates cared about him. For instance, when it was cold and I saw him wearing thin clothes, I would give him my warm coat. When it was raining and Minmin didn't bring his umbrella, I would share my umbrella with him. I would take his hand and walk him home. My students and I praised him whenever he did something well. My students voluntarily played with him at recess time. Gradually Minmin felt that his teachers and classmates were his friends and they cared about him. He started to do something good for the class and rarely made any more trouble or upset his classmates to draw attention as he did before.

Minmin was getting along with his new classmates and became much better behaved in class. However, new problems came. He could not understand the lecture. Do you have such students in your class? He wanted to learn but he could not understand what the teacher was talking about. I saw his puzzled face every day. What should I do? Can I just judge him by grades? His grades may never be good enough, but still he needs to experience the joy of learning.

First of all, I lowered my expectation of him because I knew he could not make up for all he had missed just in a few days. If other students got three correct answers while Minmin only got one right, I would comment excitedly, "Very nice! This is well done. Would you like to try the other two questions?" Other students in the class also encouraged him to do so. Whenever Minmin answered a question correctly, the whole class would applause for him. Minmin was no longer timid. He began to ask for teachers' help more actively when he did not understand.

There was another problem. Minmin did not like doing his homework. What should I do? Criticize him for not doing his homework? I tried that before but it didn't work. I started to look for his strength and I did find some. For instance, he liked labor work. He always actively participated in class and campus cleaning activities. Once it was our class's turn to wash the toilet, Minmin worked hard to make it very clean. Our class was highly commented for this fine work by school administrators at the school assembly. What was more, Minmin was very polite. He would nicely greet all the teachers he met. What I did then is that whenever I found him doing something nice, I would praise him in class and then ask him in privacy after class if he finished his homework. His face turned red and he would shake his head saying "I'll do it soon." I would smile at him and said, "OK, I'll check soon." Seeing my encouraging eyes and smile, gradually, Minmin became more confident of himself. He began to answer more questions in class and worked hard to complete his homework.

Minmin hasn't made good grades yet, but he is working hard to improve. He starts to feel the joy of learning and communication with his classmates.

Appendix B
Instruction for "Minmin' Smile" Case Study

Please read and reflect on the case study, "Minmin's Smile." As you do this, look at the situation through the eyes of an educator and the learner. What learning theory and culture you believe are represented in this case? Describe the strategies the teacher used and whether the strategies would help or hinder the students' learning. Would it work with American students? Discuss what would you do as an American educator and explain why you would do the same or differently. Support your comments using concepts from the textbook, your own experience, observation, class assignments and any other readings from the literature with which you are familiar. You may use web resources for this except Wikipedia. Please include literature citations or URLs that you may use so others can add to their own resource lists. Please describe any personal relevant experiences related to this case study. Each student is required to make a minimum of one original posting and three follow-up postings per discussion board.

Appendix C
Open-ended Survey Questions

1. What are the most important things you learned from the online discussions on case studies from American and Chinese classrooms?

2. Did reading and reflecting upon American and Chinese classroom case studies promote your understanding of teaching and learning in different cultures? Please explain.

3. Did participating in the online discussions promote your understanding of teaching and learning in different cultures? Please explain.

4. Did online discussions with education students or teachers from another culture enhance your knowledge of that culture and teachers in that culture? Please explain.

5. Did the online discussions of case studies in American and Chinese classrooms enhance your understanding of learning theory or principles represented in the cast studies? Please explain.

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Editor's Note: Psychomotor skills are often measured by direct observation against a criterion reference. This study shows the instructional design with media examples to facilitate learning. It can be used in classroom, laboratory or distance learning.

Instructional design for learning a psychomotor clinical skill online

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Keywords: Online learning, instructional design, psychomotor skill, procedural knowledge, community college, digital streaming, allied health course, safe patient transfers

Introduction

There are over 6.1 million students taking online courses according to a joint survey between the College Board and the Sloan Consortium (Allen & Seaman, 2011). Growth in enrollment for online courses in the United States continues to be overwhelming at all levels of higher education. As online education proliferates, the pedagogy and efficacy of instructional design through this delivery system will need to be further evaluated.

Based on current literature the success of teaching online will require a constructivist pedagogy and integration of relevant technology (Maor & Volet, 2007). Constructivist pedagogy posits that an individual constructs knowledge based on perspectives, interactions, and prior experiences (Maor & Volet, 2007). The professor designs activities to foster learning, provides resources, and develops evaluation techniques to demonstrate competency. The student is driven by tasks and engages with the content so learning happens (Oliver & Herrinton, 2003). When students do most of the work, the interactivity of the learning process makes asynchronous learning in the online environment effective. Open learning and instructional design components have been shown to produce effective distance education models of instruction resulting in greater student achievement scores (Williams, 2006). The ultimate potential of online learning is the improvement of teaching and learning strategies so education is a meaningful experience for both faculty and students. This will occur as each discipline encourages discourse on best practices (Larreamendy-Joerns & Leinhardt, 2006).

Community colleges, in particular, have been receptive and innovative in designing online learning courses as the majority of their student base are commuters (Lorenzetti, 2006). For online career and technical courses, a variety of technologies are used from text, to audio, to video streaming. Typically, psychomotor skills are learned through the combined approaches of online tutorials, practical experiences in fieldwork or paid employment and hands on practice in campus labs. In a meta-analysis of 96 studies with over 19,000 trainees in 168 courses, web based courses were found to be as equally effective in teaching procedural knowledge and clinical skills as classroom-based instructions. According to Sitzmann, Kraiger, Stewart, & Wisher (2006) instructional methods for courses determine student learning outcomes, not the delivery method.

Instructional design for online courses at the community college level need to address the general problems student identify as barriers to online learning. Johnson and Aragon (2003) suggest that online learning environments need to avoid information overload by limiting the amount of content and number of activities. Organizing instruction around learning modules and providing a graphic organizer of the course can limit overload. Providing hands on activities and addressing individual differences by providing content in multiple formats in also helpful to the learner. Students can be motivated by using multimedia when appropriate (Johnson & Aragon, 2003). Boettcher (2007) contends faculty creating and implementing online courses will need to have clear communication, assignment, and deadline guideline for learners to engage effectively in active learning.

Quality Matters is a company encouraging a faculty-centered, peer review based process designed to insure quality in online courses. Their standards included guidelines for formulating the course introduction, learning objectives, assessment and measurement, resources and materials, learner engagement, and course technology (Maryland Online, Inc., 2005). In a quality designed online course, there needs to be a statement regarding the purpose of the course and instructions on how to get started and where to find the course materials (Quality Matters, 2013). Learning objectives need to be measurable, and clearly state how the students can meet those objectives. Assessments need to measure the learning objectives and be consistent with course learning activities in the course syllabus (Quality Matters, 2013). The grading criteria provided should indicate to students how their work will be graded. The remaining three standards for a quality online course pertain to the learner's ability to benefit from the course materials and use the course technology effectively. In an online course, the instructional materials need to contribute directly to the student's completion of the learning objectives. The relationship between the learning activities and the instructional materials need to be evident to the student. The student can then be engaged in active learning via the course technology and instructional materials (Quality Matters, 2013).

Instructional design

In designing a course in a new format and delivery system, both external factors (accreditation standards, graduate and employer feedback, advisory council input) and internal considerations (political and financial support, faculty, and student demand) need to be addressed. An ideal model can be designed in planning a course, and then more realistic factors can be considered such as resources and fiscal constraints. There is a defined interrelationship between a successful instructional design and a successful course. An effective model for course design is complex and sequential. It includes the elements of selecting a project, planning outcomes, identifying goals and objectives, and using a learner centered approach (Diamond, 2008).

Planned outcomes address student competency and emphasize synthesis of course content with application of knowledge. Outcomes may ask the student to produce papers, projects, portfolios, demonstrations, performances, or exams that can be measured or assessed (Diamond, 2008). In contrast, objectives describe the skills and content that a student will master by the end of a course. Course objectives are on a smaller scale, describing smaller, discreet skills that require basic thinking skills. They are subset of outcomes. Objectives are the building blocks used to produce whatever is used to demonstrate mastery of an outcome. Objectives can be practiced and assessed individually, but are usually only a portion of an overall project or application outcomes (Diamond, 2008). Goals and objectives for the course are determined based on predetermined student proficiency outcomes at the college, discipline, and course level (Diamond, 2008).

Once course goals and objectives are outlined, the course production begins with choosing textbooks, evaluating, and selecting instructional media including technology options, and developing new course materials (Diamond, 2008). An expanded course syllabus and schedule are developed as a guideline for student centered learning. A variety of options to measure students' achievements of course objectives will further add to the learning centered environment. Assignment guidelines need to be clear and easily accessible, while grading needs to be consistent and predictable. A systematic design model involves selecting instructional strategies and media, producing and field-testing the course, and evaluating and revising the curricula based on student outcomes and faculty feedback (Diamond, 2008). Analyzing data before and after course implementation helps clarify and refine successful student and faculty learning experiences.

Online module for teaching a psychomotor skill

Using best practice guidelines, a short course or module for learning a clinical psychomotor skill was designed for online learning. The module was offered to occupational therapy assistant students at a two-year community college. The intent was for students to learn the clinical skill of Safe Patient Transfers (SPT) with beginning clinical proficiency without direct instructor presence.

The online safe patient transfers course consisted of five independent learning units. The units were posture, lifting techniques, stand pivot safe patient transfer, sliding board safe patient transfer, and an occupational therapy treatment of a patient with a back injury (the most common injury in lifting and transferring patients). Instructional design is evident throughout the course as outcomes, objectives, instructional methods, and activities (including remediation and enrichment activities), and student assessments are linked in learning units below.

The SPT course limited content and activity, used learning modules as a course organizer, and motivated students by utilizing multimedia as recommended by Johnson & Aragon (2003). Quality Matters standards guided construction of the course introduction, objectives, assessments, and instructional materials and techniques. Since the course focused on technical psychomotor or procedural knowledge skills, the Criterion Referenced Instruction and Bloom's taxonomy of the psychomotor domain were chosen as the primary instructional design models.

The Criterion Referenced Instruction (CRI) framework developed by Robert Mager (1997) was congruent with the SPT course. Criterion Referenced Instruction incorporates the concepts of learner initiative, performance-oriented instruction, and mastery learning (Mager, 1997). Mager's course designs are self-paced and utilize a variety of multimedia such as workbooks, videotapes, small group discussions, and computer based instruction. There are well-defined course objectives, practice exercises, and mastery exams.

Mager's instructional design is based on learning theorists Gagne, Knowles, and Rogers. Mager lists four critical aspects that form a comprehensive method for design and delivery of educational and training materials The first aspect identifies what needs to be learned and can be called the goal or task analysis. The second are the performance objectives or criterion, which delineate the exact specification of the outcomes to be accomplished and how they are to be evaluated. The third component is criterion referenced testing or the evaluation of learning in terms of the knowledge and skills specified in the objectives. The last aspect is the development of learning modules tied to specific objectives (Mager, 1997).

The SPT course was designed to be self-paced, requiring learner initiative. It emphasized practice and proficiency learning of a technical skill. There were both written and performance based evaluations in the SPT course. Mager's four design aspects were used to develop instructional materials. A task analysis was completed for what students needed to learn. Each objective was developed using specific criterion designed to accomplish the course goals. The instructional activities and media were linked to each goal. Assessments were developed based on criterion. Each learning unit was tied to a specific objective.

Table 1
Learning Units for Safe Patient Transfers Course

Unit 1: Posture	
Outcome:	The student will recognize normal and abnormal postural alignment in human beings.
Objectives:	At the completion of the unit the student will be able to: Identify correct postural alignment of an adult in standing Identify correct postural alignment of an adult in sitting Identify correct postural alignment of an adult in lying down The student will identify at least three spinal alignment deviations of an adult in standing.
Instructional Methods and Activities:	Read CH 4, Pierson Observe video of postures in standing, sitting and lying down from online links below or DVD http://wmedia.nscc.edu/hayden_c/standingposture.wmv http://wmedia.nscc.edu/hayden_c/sittingposture.wmv http://wmedia.nscc.edu/hayden_c/lyingdownposture.wmv Observe postural alignment deviations http://epicself.com/wp-content/uploads/2007/10/posture-charts.gif Imitate the posture lab activities with one other person
Student Assessments:	Pre/Post Test on posture to evaluate learner ability to recognize normal and abnormal postural alignment in preparation for lifting and transfer techniques.
Unit 2: Lifting Techniques	
Outcome:	The student will compare and contrast safe vs. unsafe lifting techniques for objects.
Objectives:	At the completion of the unit the student will be able to: State the principles of body mechanics. Identify at least three safe lifting techniques. Recognize when a lifting technique is unsafe.
Instructional Methods and Activities:	Read CH 4, Pierson Observe video of lifting techniques from online link or DVD http://wmedia.nscc.edu/hayden_c/andrewlifting.wmv Enrichment Activity http://wmedia.nscc.edu/hayden_c/lizpatricialifting.wmv Imitate lifting lab activities
Student Assessments:	Pre/Post Test on posture to evaluate learner ability to recognize normal and abnormal postural alignment in preparation for lifting and transfer techniques.
Unit 3: Stand Pivot Transfer	
Outcome:	The student will develop beginning proficiency in the clinical skill of a stand pivot safe patient transfer.
Objectives:	At the completion of the unit the student will be able to: Demonstrate the ability to safely transfer a client with one-sided weakness (hemiparesis) from wheelchair to mat using proper body mechanics with a score of 75% within two attempts.

Instructional Methods and Activities: Student Assessments:	Read Ch. 7, Pierson and Ch. 16, section II, Early Observe video of step-by-step instruction for stand pivot transfer http://wmedia.nscc.edu/hayden_c/andrewstandpivotstepbystep.wmv Remediation Activities: http://wmedia.nscc.edu/hayden_c/lizstandpivot.wmv http://wmedia.nscc.edu/hayden_c/patriciastandpivot.wmv Enrichment Activity http://wmedia.nscc.edu/hayden_c/dougstandpivot.wmv Imitate and practice transfer with one adult Instructor evaluation using the behavioral competency checklist Self evaluation using the behavioral competency checklist
Unit 4: Sliding Board Transfer	
Outcome: Objectives:	The student will develop beginning proficiency in the clinical skill of a sliding board safe patient transfer. At the completion of the unit the student will be able to: Demonstrate the ability to safely transfer a client with total paralysis (quadriplegia) from wheelchair to mat using a sliding board and proper body mechanics with a score of 75% within two attempts.
Instructional Methods and Activities: 	Read Ch. 7, Pierson and Ch. 16, section II, Early Observe video of step-by-step instruction for sliding board transfer http://wmedia.nscc.edu/hayden_c/andrewslidingboardstepbystep.wmv Remediation Activities: http://wmedia.nscc.edu/hayden_c/lizslidingboard.wmv http://wmedia.nscc.edu/hayden_c/patriciaslidingboard.wmv Enrichment Activity http://wmedia.nscc.edu/hayden_c/dougslidingboard.wmv Imitate and practice transfer with one adult
Student Assessments:	Instructor evaluation using the behavioral competency checklist Self evaluation using the behavioral competency checklist
Unit 5: OT Treatment for Back Injury	
Outcome: Objectives: Instructional Methods and Activities: Student Assessments:	The student will outline an occupational therapy treatment session for an adult with a physical challenge. At the completion of the unit the student will be able to: Write a mock occupational therapy treatment session for an allied health care worker who has suffered a back injury due to improper lifting and transfer techniques. Review lecture notes on posture, body mechanics, and lifting techniques Read OTA textbook information on back injury View online link examples of OT treatment for adult with a back injury Contact OT community resources for input Peer review of written assignment optional The student will complete a back injury written assignment per assignment guidelines with formative and summative instructor feedback.

Bloom's taxonomy of the psychomotor domain was primarily used in development of instructional videos and lab activities. Bloom's taxonomy for psychomotor skills is characterized by progressive levels of physical actions from observation, to imitation, then practice, and mastery of the skill. Table 2 below illustrates how the safe patient transfers skill is learned according to Bloom's taxonomy.

Table 2
Psychomotor Domain in Bloom's Taxonomy

Level	Definition	Example
1. Observing	Active mental attending of a physical event.	The learner may read about the topic and then watch a video performance of a more experienced person in his/her performance of the skill. The student is asked to observe sequences and relationships and to pay particular attention to the finished product.
2. Imitating	Attempted copying of a physical behavior.	The learner begins to acquire the rudiments of the skill. The learner follows directions and sequences in a conscious effort to imitate the model.
3. Practicing	Trying a specific physical activity over and over.	The entire sequence is performed repeatedly. All aspects of the act are performed in sequence. Conscious effort fades as the performance becomes more or less habitual. Timing and coordination are emphasized. The person has acquired a proficiency of the skill but is not an expert.
4. Adapting	Fine-tuning. Making minor adjustments in the physical activity in order to perfect it.	Perfection of the skill. Minor adjustments are made that influence the total performance.

(Pennsylvania State University, 2010)

Video technology, via digital streaming, was the primary learning tool for students to learn SPT psychomotor techniques. Video captured the dynamic of movement during training of this clinical skill. A review of existing videos was found unsatisfactory. Original videos were produced, aided by the instructional technologist and volunteers at the two-year community college. The videos were specifically designed to teach correct posture, lifting techniques, and safe patient transfers. A step-by-step process using a transfers competency checklist guided the video making process. A panel of OT professionals and the instructional technology faculty reviewed the instructional videos and provided content and instructional feedback. On the recommendation of the OT and instructional technology faculty, PowerPoint slides with voice over were added to stimulate clinical reasoning skills. Students were asked questions concerning the videos of posture, lifting techniques, and transfer scenarios. Students were cued to identify what was lacking or inaccurate in the video demonstrations of the psychomotor clinical skills. Students observed videotapes of a therapist using proper body mechanics, ergonomic principles, and lifting equipment during a safe patient transfer via digital streaming online. The three lab activities corresponded with the videos. The first lab activity was specifically designed for students to be able to identify and imitate assessment of correct posture in standing, sitting, and lying down. The second lab activity was designed for the student to imitate and practice various lifting techniques. The third lab activity was the actual safe patient transfer's competency checklist.

Students had access online to lecture notes and the 15 four to twelve minute video clips demonstrating correct posture, body mechanics, lifting techniques and transfer techniques. If students had difficulty accessing the web links due to slow Internet at home, students received CD's of the training videos upon request. The students had continuous access to the training information during a three-week time span. The instructor was available online through e-mail, and by phone throughout this process. To practice the psychomotor skills needed for safe patient

transfers, students needed the appropriate equipment, an adult with which to practice, and electronic access to the course instructor for guidance or clarification. The majority of students checked out equipment from the OTA labs. Students who were employed borrowed equipment from hospitals and nursing homes. Another resource for equipment was a local durable medical equipment vendor. Students practiced on their own with adult family members, neighbors, or friends. Many OTA students initiated practice with classmates. Any issues or questions that arose were addressed through asynchronous online discussions or e-mail to the instructor or peers.

Students were advised they needed to spend approximately 10 to 30 hours participating in the safe patient transfers course depending on their prior knowledge and skill level. The course was completed over a three-week time span within the regular semester. A discussion forum was created in the learning management system where each participant could post questions or comments regarding practicing for the safe patient transfers competency. Students could also share resources in the discussion forum in regards to the written assignment and ask for peer review of their work.

The operational course design allowed students to access information according to prior experience and learning needs (Diamond, 2008). Students were able to choose to read the chapters in the book or read the lecture notes. All students viewed a minimum of four instructional videos (posture, lifting, step-by-step stand pivot transfers, and step-by-step sliding board transfers). The student was guided to remedial videos and/or enrichment videos as needed for further learning.

Lab activities were optional, but imitation and practice of posture and lifting techniques was encouraged as these built towards the skill of transferring patients. Students decided independently how long, where, and with whom to practice the two patient transfers required for the skill competency. Students needed to be independent learners and competent in basic computer literacy to most benefit from the operational course design.

The student assessment tools used in the course were the pre-test/posttest, a behavioral competency checklist, and the written assignment. A pretest/posttest consisting of 25 multiple-choice questions was administered online to assess students' cognitive knowledge of safe patient transfers. The behavioral competency checklist was used as a standardized grading form to rate each student's video performance of safe patient transfers. The OTA students submitted a one to three page paper outlining a treatment session for an allied health care worker who has suffered a back injury due to improper lifting and transfer techniques.

The participants in the action research project received feedback on their performance in several ways. The pretest/posttest student assessment provided information to each participant on his/her level of cognitive knowledge prior to and after completion of the course through online administration of the tests. Each participant was given feedback by the instructor/researcher at the time the transfers competency was being videotaped. The student was offered immediate verbal feedback on his/her psychomotor performance of safe patient transfers. The participant was also notified at this time whether he/she has passed or failed the competency. Once the student submitted his or her self-assessment by course e-mail, the instructor's grade for the competency was made available to the student online. Each student was offered the opportunity to submit a rough draft of the written assignment via e-mail. Formative feedback was given in the form of written comments from the instructor. Then the student made any needed changes and resubmitted the written assignment in the learning management system for a grade and summative feedback. There were specific deadlines for taking the tests, turning in the written assignment, and completing the descriptive survey.

Results and Discussion

The SPT course was designed and implemented online with occupational therapy assistant students at a community college. Safe patient transfers are typically a psychomotor clinical skill that is learned in the classroom setting with instructor feedback and hands on practice with classmates. An article entitled "Online Learning of Safe Patient Transfers in Occupational Therapy Education" has been published in *The Open Journal of Occupational Therapy* expanding on the data collected for the first 2 years of the study (Hayden, 2013). This article reports different information, and the study was extended to a total of four years duration.

Ninety-six students completed the online SPT course in the four-year period from 2008 to 2011. With seventy five percent as the cutoff for passing the online SPT course, only two of the ninety-six students failed the course (one did not take the online test). After the first year when a pretest was not administered, eighty five percent of the students passed the online written test. Two of the ninety-six OTA students failed the behavioral competency portion of the course. Two different students failed the written assignment portion of the course. These pass rates are comparable to when the psychomotor clinical skill was previously learned in a hands-on OTA classroom setting at the community college.

Results from an online survey indicate the majority of students were comfortable their computer skills were sufficient to participate in the course. The majority of students felt sufficiently prepared learning from the online instruction to complete the test, behavioral competency, and written assignment. When asked which learning activities were the most helpful in learning posture and lifting techniques, students listed the videos and practicing with classmates as equally helpful. However, almost twice as many students indicated that for the actual transfer competencies, practicing with classmates was more beneficial than watching videos. Approximately one half of the students indicated they would be interested in learning other psychomotor skills online. However, the majority of students would not choose to attend an entire two-year program online.

Table 3

Safe Patient Transfers Course Survey Results

08	09	10	11	Total 95	Survey Questions
					1. What was your experience with computer use prior to this course?
6	13	11	10	40	A. I have taken an online or computer course.
7	8	8	15	38	B. I have used computers in the past.
4	0	1	1	6	C. I have had the OTA computer training only.
1	3	3	4	11	D. I taught myself to use the computer.
					2. My computer skills were sufficient for me to participate in this course, except
4	2	2	2	10	A. I had trouble downloading the videos and asked for a CD of the videos.
3	2	1	0	6	B. I had trouble compiling and uploading the written assignment.
0	1	2	1	4	C. I had trouble taking the test.
11	19	18	27	75	D. I had no problems.
					3. If you have worked previously as a health professional, choose which answer best fits your experience. If you have not had prior safe patient transfers experience, mark that answer.
14	16	17	19	66	A. I have not had prior safe patient transfers training.

0	2	3	3	8	B. I learned information from safe patient transfers that contradicted my earlier training.
0	0	0	0	0	C. I learned no new information from this safe patient transfers course, as I knew how to perform safe patient transfers already.
4	6	3	8	21	D. I learned additional new information from this safe patient transfers course.
					4. Did you feel sufficiently prepared to pass the written tests from the online information?
14	20	19	26	79	A. Yes
4	4	4	4	16	B. No
					5. Did you feel sufficiently prepared to pass the safe patient transfers competency from the online information?
17	22	18	25	82	A. Yes
1	2	5	5	13	B. No
					6. Did you feel sufficiently prepared to pass the low back injury written assignment from the online information?
13	21	21	24	79	A. Yes
5	3	2	6	16	B. No
					7. Which learning activities were the most helpful in learning the posture and lifting techniques?
0	0	0	0	0	A. Lecture notes
0	0	1	0	1	B. Lab assignments
7	15	13	13	48	C. Videos
11	9	9	16	45	D. Practicing with classmates
0	0	0	1	1	E. Practicing at home with others
					8. Which learning activities were most helpful in learning the stand pivot and sliding board transfers?
0	0	0	0	0	A. Lecture notes
0	0	0	0	0	B. Lab assignments
1	11	6	13	31	C. Videos
17	12	16	16	61	D. Practicing with classmates
0	1	1	1	3	E. Practicing at home with others
					9. Would you be interested in learning other OTA skills/competencies online?
11	14	16	17	58	A. Yes
7	10	7	13	37	B. No
					10. Would you consider attending an entire OTA program online rather than commuting to lecture and labs?
2	7	6	9	24	A. Yes
16	17	17	21	71	B. No

Recommendations

Teaching clinical psychomotor skills effectively online requires careful planning, access to instructional technology expertise, and diligence in field testing the course and making relevant changes when indicated. Student success in online courses is influenced by quality instructional design, clear student expectations, multimedia instructional methods, and assessments linked to measurable objectives. From the faculty point of view, allied health care professional procedural knowledge or a psychomotor clinical skill can be taught effectively online. From the students' perspective, a blended course may be a better alternative.

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