Virtual Collaboration: A Phenomenological Study Of Remote Online Adjuncts Virtual Collaboration Lived Experiences

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Abstract: Online education is rapidly growing in higher education. This has left colleges needing to hire more part-time remote adjuncts to fill the fluctuating number of available courses. Because remote online adjuncts are susceptible to isolation, the need has arisen to study the benefits and barriers of virtual collaboration. The purpose of this phenomenological qualitative study was to examine the virtual collaboration lived experiences of remote online adjuncts. The study helped unveil the motives and lived experiences of virtual collaboration among online adjuncts. The composite description revealed nine themes about how participants experience virtual collaboration. The study suggests that higher education leaders would be well served to focus their efforts on leadership that will promote virtual collaboration practices. It is advisable that higher education leaders look for ways to provide leadership to connect collaborators, create opportunities for collaboration, and define clear roles for virtual collaboration. Remote online adjuncts may find camaraderie, social connections, an opportunity to participate in scholarship, a chance for self-reflection, and develop a sense of pride through virtual collaboration. Barriers that must be overcome for virtual collaboration included trust, a lack of time, and a feeling of pressure to participate.

INTRODUCTION

Although hiring adjunct faculty to teach online classes is commonplace in institutions of higher education, less common is a clear understanding of how adjunct faculty collaborate with their peers once they start teaching online (Wolf, 2006). Many institutions of higher education offer online classes and turn to adjuncts to help teach them (Allen & Seaman, 2010). Changing enrollment numbers for online universities have increased the number of adjuncts needed to fill online teaching positions. Over the past five years, students taking online classes increased 10 times faster than traditional enrollments, and 31% of all higher education students take at least one college class via the Internet (Allen & Seaman, 2010). As adjuncts fill these teaching vacancies, many do not have an understanding of how to virtually collaborate with their peers (Wolf, 2006). Developments, such as, new advancements in pedagogy and frequent changes in technology may have caused online adjuncts to face challenges because of their physical removal from the campus (Shattuck et al., 2011). The increased distance may lead to the remote online adjunct feeling isolated because of the lack of communication or support from other instructors. In a traditional campus setting, adjuncts have the opportunity to collaborate with colleagues face-to-face (Shattuck et al., 2011), however when adjuncts are offsite or remote, face-to-face collaboration with peers is not feasible (McLean, 2006). The distance between online remote adjuncts creates a need to find other solutions for remote online adjuncts to collaborate.

Virtual collaboration is one approach for remote online adjuncts to interact with peers, as the use of the Internet for collaboration removes the barrier of distance (McLean, 2006). Virtual collaboration is a process for working with others to create a product, to examine professional practices, or to discuss topics via the Internet (Puzziferro-Schnitzer, 2005). Though virtual collaboration could offer a viable option to interact with other adjuncts, a gap exists in how institutions of higher education and adjuncts approach the process. Although many institutions who hire remote online adjuncts realize the need for collaboration, it is unclear the best way to support these faculty members (Kudaravalli & Faraj, 2008). The lack of knowledge about virtual collaboration practices may lead to confusion.

Possessing a clear understanding of how remote online adjunct faculty collaborate virtually could provide higher education administrators with a better understanding of how to foster these practices. By understanding the remote adjunct faculties' lived experiences, administrators and adjuncts who teach online can learn the strengths and weaknesses of virtual collaboration. As adjuncts teach online from remote locations, the need to understand virtual collaborative lived experiences of this population becomes more important (McLean, 2006).

LITERATURE REVIEW

The changes in hiring practices of remote online adjuncts created a new and unfamiliar situation in higher education. Online instruction is a new practice for many higher education faculty. As more institutions of higher education move toward online learning, the question of how to foster collaboration arises.

The reasons for faculty collaboration in higher education differ. Austin and Baldwin (1991) stated that collaboration in higher education occurs in two ways: teaching and research. According to Austin and Baldwin, higher education faculty collaborate by conducting research, writing, and partnering in teaching. Collaboration also encourages faculty to think beyond the narrow borders of their classrooms by incorporating diverse teaching strategies, sharing knowledge, and communicating with peers (Stevenson et al., 2005). Definitions of virtual collaboration differ throughout the literature. Coughlin and Kadjer (2009) offered one definition of virtual collaboration as process that uses a variety of methods for professionals to work together, pool resources, communicate, and share ideas, fostering opportunities for self-development. Virtual collaboration may take place via e-mail, online faculty forums, virtual learning communities, online mailing lists, and other forms of communication facilitated by technology.

The lack of current research limits the development of knowledge about both commonalities and differences in how online remote adjuncts use virtual collaboration. Without a model, remote online faculty cannot gain a clear understanding of virtual collaboration practices. Researchers (Allen & Seaman, 2010; Kudaravalli & Faraj, 2008; Shattuck et al., 2011) suggested that professional development opportunities focusing on helping remote online adjuncts become familiar with online teaching skills may not be widely available. To help both remote online adjuncts and higher education administration develop future virtual collaboration practices, an awareness of current virtual collaboration lived experiences must exist. A model of virtual collaboration practices provides a framework for remote online adjuncts to follow.

ONLINE EDUCATION TRENDS

The literature review indicates enrollments for online education have risen in the past 10 years (Allen & Seaman, 2010; Coughlin & Kadjer 2009; McCarthy & Samors, 2009; McLean, 2006; US Department of Education, 2010). According to Allen and Seaman, in the United States 73% of institutions of higher education reported more demand for existing online courses and programs. Institutions of higher education showed 74% of reporting public institutions rated online education as critical to their long-term strategy. Shea (2007) found that trends of online enrollment have changed and more than three million students enrolled in online courses in 2007.

The Center for Community College Student Engagement (2010), a research and service initiative, found that 67% of community college faculty members across the United States were adjuncts. Many of these adjuncts have full-time day jobs or simultaneously teach for several universities (Puzziferro-Schnitzer, 2005). From 2002 to 2007, an annual growth rate of 20% occurred in students taking online classes (McCarthy & Samors, 2009).

ONLINE FACULTY TRAINING

Researchers suggested that both remote online adjuncts and tenured faculty have concerns about training, professional development, and support for online teaching (Keramidas, Ludlow, Collins, & Baird, 2007; Kim & Bonk, 2006). Rice and Dawley (2007) surveyed 178 online faculty and found that 93% had five or fewer years of experience teaching online. The structure of online education differs in methods and approaches, generating a desire by faculty for training and participation in professional development. A new adjunct may be reluctant to ask too many questions in fear of losing the newly acquired position (Kim & Bonk, 2006). Remote online faculty need training to be successful (Shattuck et al., 2011).

Kim and Bonk (2006) suggested that critical components of successful online faculty are training and support. The unique role of an online instructor requires support to meet the various demands of facilitating a class. Kim and Bonk surveyed 562 college adjuncts, including demographic information, questions about online learning, and predictions about online teaching and learning. The researchers found that online faculty had several needs, including abilities to facilitate or manage the online classroom, develop online courses, and continue to develop as a subject matter expert in their fields. Many of the respondents expected to receive training and support from their institutions to prepare for online teaching (Kim & Bonk, 2006). The study indicated that remote online faculty desire training and more research to evaluate if virtual collaboration can fill this void.

Researchers Keramidas et al. (2007) documented the importance of training instructors before teaching in a distance education program for their first time. Hewett and Powers (2007) noted that a significant gap exists in professional development and support of online instructors. Shattuck et al. (2011), added that professional development and training opportunities do not exist for all new online faculty. Even though the numbers of remote online adjuncts continue to grow, the research does not substantively address different options, such as virtual collaboration for training and professional development. Faculty who teach in a brick and mortar building benefit from their peers' nearby availability for asking questions and engaging in discussions, which helps with faculty training (Allen & Seaman, 2010). On-campus faculty have the advantage of office spaces, providing a more natural integration and evolution of learning from their peers (Palloff & Pratt, 2005).

In a study by Ali et al. (2005) 70 faculty members from University of West Georgia shared ways that the university could assist faculty in delivering online courses. The response of the faculty showed a need to provide more frequent and varied training sessions, but the study did not reveal the types of training needed. Their study reviewed the professional development and training needs of remote online adjuncts, thereby, adding to the knowledge of the demands of online teaching.

Remote online faculty need professional development and training which might be achieved through collaboration. A number of researchers found that many of the needs for training, such as using emerging technology, providing quality feedback, and sustaining participation for remote online faculty are not being met (Keramidas et al., 2007; Kim & Bonk, 2006). Collaboration is imperative to higher education faculty training (Harris, 2012). Stevenson et al. (2005) added that collaboration is a practical approach that offers a flexible option for higher-education faculty development. The next section focuses on the concepts and definition of collaboration in higher education. Changes in higher education collaboration deserves attention, especially as these changes relate to the training and professional development of online remote faculty.

COLLABORATION

Collaboration is an integral part of education (Vallance, Towndrow, & Wiz, 2010), and defining collaboration and the role it plays in higher education bears importance. Austin and Baldwin (1991) stated that no definition of collaboration provides a description of the numerous examples. The definition of collaboration varies based on its purpose. Some researchers focus on collaboration as a product while others view collaboration as an intellectual pursuit. Fichter (2005) viewed collaboration as an event by a community of learners that usually leads to a product or culminating project. Vallance et al., (2010) defined collaboration as a group of participants who set out to meet a goal. Blankenstein (2010) described collaboration as faculty frequently working together to improve teaching effectiveness and strategies. Collaboration can take place in many venues and have different outcomes based on the size of the group and the purpose for meeting (Vallance et al., 2010). The definition of collaboration should be broad and flexible (Austin & Baldwin, 1991).

The reasons for faculty collaboration in higher education differ. Austin and Baldwin (1991) stated that collaboration in higher education occurs in two ways: teaching and research. According to Austin and Baldwin, higher education faculty collaborate by conducting research, writing, and partnering in teaching. Collaboration also encourages faculty to think beyond the narrow borders of their classrooms by incorporating diverse teaching strategies, sharing knowledge, and communicating with peers (Stevenson et al., 2005).

Collaboration techniques and strategies in higher education differ based on the setting and needs of the faculty. The types of collaboration can be divided into several categories. The following sections focus on three types of collaboration: face-to-face, virtual, and computer-mediated communication.

In-Person (Face-to-Face) Collaboration

VIRTUAL COLLABORATION

Definitions of virtual collaboration differ throughout the literature. Coughlin and Kadjer (2009) offered one definition of virtual collaboration as process that uses a variety of methods for professionals to work together, pool resources, communicate, and share ideas, fostering opportunities for self-development. For the purposes of this study, a more simple definition offered by Hu et al., (2011) will be used: faculty learn from each other by sharing knowledge and reflecting on common experiences. Similar to K-12 learning communities, college professors also build learning communities to become more effective and improve pedagogy (Hu et al., 2011). Virtual collaboration may take place via e-mail, online faculty forums, virtual learning communities, online mailing lists, and other forms of communication facilitated by technology.

Advancements in technology have allowed faculty and adjuncts to move collaboration practices to online settings (Hu et al., 2011). The development of the Internet unlocked constraints to allow collaboration without limits by physical location (Hemetsberger & Reinhardt, 2009). Other forms of audio and video communication for collaborative purposes include the telephone, writing letters, sending e-mail, and other documents meant for communication (DeRosa et al., 2004).

The purposes for such modes of virtual collaboration vary based on the goals of the collaborators and on the types of universities and their visions (Kabilan et al., 2011). The tools the Internet presently offers provide opportunities for faculty to collaborate virtually in partners, small groups, or larger learning communities. The practice of virtual collaboration frequently occurs through online communities of professional faculty (Kabilan et al., 2011). The Internet offers professionals an opportunity to contribute to groups that support their interests, respond to others intellectual writings, and aid in collaborative problem-solving (Coughlin & Kadjer, 2009).

TYPES OF VIRTUAL COLLABORATION

Forms of virtual collaboration vary. Farooq, Schank, Harris, Fusco, and Schlager (2008) reviewed 5 months of extracted data from January through May 2007 from an educational networking site called Tapped In. In 2009, Tapped In had approximately 20,000 members with 500 active groups (Farooq et al., 2008). The primary dependent variable was online participation. Farooq et al., (2008) also provided the two main categories for participation. The sample evolved from groups based on synchronous versus asynchronous discussions. A definition provided criteria for what comprised an active versus inactive group. The researchers collected participation data of faculty by gathering data from online systems by counting levels of participation. Although the researchers cautioned the generalizability of the study, they found that social networking and online communication provided a means for virtual collaboration (Farooq et al., 2008). Sistek-Chandler stated, "One out of every 6 minutes spent online is spent on a social networking site, and one half of the total United States Internet audience visits a social networking site in any given day" (2012, p. 81). The data from this study did not provide information on specifically how people are using the sites, but the results offer insights into the profuse use of social networking. Tapped In is only one of the many social networking platforms available for virtual collaboration and the generalizability offers transferability to other social networks with some modifications (Farooq et al., 2008).

Other successful forms of online collaboration include e-mail, online discussions, and weekly reflections serving as the collaboration framework, as found by Hu et al. (2011), who noted that these tools allowed five college instructors to reflect on and become better faculty. The researchers sought answers to how online learning communities could support teacher effectiveness (Hu et al., 2011). The participants posted their journals on a weekly basis so that others could reply to them and supported each other with a question and answer thread. The participants used a course management system to share ideas. The study, grounded in a theoretical framework of social constructivism, offered the online learning community a social place where members

virtually collaborated to influence online teaching practices (Hu et al., 2011). According to the researchers, the completed coding emerged with categories for self-reflection on assignments, course design, and seeking help for technical issues. The results indicated that course design was the most referenced theme for self-reflection, followed by general themes based on the literacy learning community itself, seeking and providing advice, and finally reflections on teaching and learning (Hu et al., 2011).

Virtual collaboration proved successful in a variety of modes and venues. Computer mediated communication (CMC) is one form that continues to evolve and expand opportunities for collaboration. The following section addresses the nuance of CMC.

COMPUTER-MEDIATED COMMUNCIATION

As early as 1968, researchers for the Department of Defense predicted that a type of computer communities would occur in the future (Fuchs, 2011). Early virtual communities made their debut as early as 1985 with a community of approximately 3,000 learners known as Whole Earth 'Lectronic Link (Sistek-Chandler, 2012). The group formed as an early form of social media where people gathered to communicate online. The earlier uses of CMC included e-mail, chat rooms, and instant messages. Later the definition expanded to include social media because of the change in available tools and platforms (Fuchs, 2011).

The use of CMC provides a diverse group of people the opportunity to come together who could not communicate otherwise (Greene, 2008). In addition, Greene added that CMC allows a broader population to collaborate and permits a social context to exist. CMC differs from face-to-face communication because of its added advantage of threading discussions for archival purposes (Greene, 2008). When opened to the public, CMC permits others to read and provide insights into topics of interest. The advantage of CMC permits communication to be publishable, which allows others access and fosters the social nature of learning (Greene, 2008).

Computer-mediated communication (CMC) offers possibilities for educators to create a process of learning and social connections via the online environment (Kabilan et al., 2011). Alderton, Brunsell, and Bariexca (2011) added that faculty need to engage in dialogue with others who can give support and advice so they can try new and different online strategies. CMC can take many forms from informal dialogue to professional development. For example, online professional development activities and programs have the capability of inspiring virtual collaboration among faculty in a variety of locations in the world (Kabilan et al., 2011). The CMC and Internet applications make collaboration and social connection possible across a variety of programs for different faculty.

One of the most prevalent social networking locations that incorporate the concepts of CMC is Twitter (Alderton et al., 2011). A group of researchers set out to examine how educators use Twitter to collaborate virtually with other faculty. In the study participants originated from a group of educators who used Twitter regularly. Researchers used 200 consecutive individual messages from a random selection for analysis from each of the participants' Twitter accounts (Alderton et al., 2011). The participants also completed a survey consisting of multiple-choice and open-ended questions. Alderton et al., (2011) stated that for the study, respondents indicated if they had ever collaborated virtually on a professional task, implemented something in their professional practice from virtual collaboration, or professionally benefitted from their participation in Twitter. The results reflected that participants used Twitter to collaborate virtually with other educators. Their connections summoned support, asked questions, and shared materials and ideas (Alderton et al., 2011).

In addition, Alderton et al., (2011) stated "Four unique themes emerged from their responses: access to resources, supportive relationships, increased leadership capacity, and development of a professional vision" (p. 360). All 10 of the participants described specific influences regarding their teaching from collaborating on Twitter. The researchers concluded that the majority of the participants' dialogue on Twitter had an educational focus and offered categories of practice, philosophy, questions, and sharing of resources (Alderton et al., 2011). The participants in this study successfully used the social-networking site of Twitter for CMC.

Other research showed that CMC offers a possible approach to professional development and allows online faculty to experience professional growth in innovative ways. The following section will explore examples of CMC used for professional development purposes.

COMPUTER-MEDIATED COMMUNICATION (CMC)AND PROFESSIONAL DEVELOPMENT

Researchers noted that CMC proved to be a vital means for professional interaction among faculty for professional development (Kabilan et al., 2011). Working with a partner or team with CMC and online networks develops a new opportunity that allows faculty to influence their skills (Jarvenpaa & Leidner, 1999). The advances in computer-mediated communication permit members to engage in collaborative work, when distance would permit them from doing so otherwise (Jarvenpaa & Leidner, 1999). According to the research team of Hu et al., (2011):

Results indicated that 90% of the responding universities (63 of 70) used some form of computer-mediated communication, such as e-mail or online discussion groups, to support their interaction within learning communities. E-mail systems were the most commonly used tools (98.4), followed by online discussion forum tools (42.9%), websites (49.2%), course management systems (27%), and virtual chat tools (7.9%). (p. 58)

The research indicated that higher education faculty uses computer-mediated communication as a means to collaborate. In addition, according to Sistek-Chandler (2012) e-mail and search engines are the most popular applications on the Internet, followed closely by social networking sites. Although the opportunities of CMC allow professional development, some disadvantages also exist.

Noted drawbacks to CMC in the literature include CMC as a less exciting and not as emotionally fulfilling experience when compared to face-to-face interactions (DeRosa et al., 2004). Because the CMC offers a different environment than face-to-face collaboration, some faculty may not want to participate (Hawkins, et al., 2012). Others argued that the specific dialogue that takes place in the online environment outweighs the lack of emotional connection (Fichter, 2005; Sistek-Chandler, 2012). For example, communication in an online environment may be more deliberate because a face-to-face environment creates an atmosphere where participants are overly polite to each other in fear of contradicting the other (Fichter, 2005).

Computer-mediated communication provides a pathway, making virtual professional communities a possibility. According to Kezar and Lester (2009) faculty need a means for creating Professional Learning Communities (PLC). CMC provide the means for virtual PLCs. The following section will review virtual professional learning communities.

VIRTUAL PROFESSIONAL LEARNING COMMUNITIES

One form of virtual collaboration occurs through online professional learning communities. The online learning community promotes virtual collaboration and reflection (Digenti, 1998). In an online learning community, faculty communicate through the Internet to achieve a shared goal (Baghdadi, 2011). As professionals collaborate virtually and construct knowledge, they develop communities that support learning and development (Alderton et al., 2011). Reichstetter (2006) emphasized the work of professional learning communities as a team whose members regularly collaborate toward continued improvement in meeting learner needs through a shared vision. The professional learning community takes the form of different groups based on different collaboration needs.

Duncan-Howell (2010) explored the experiences of online groups and offered some decisions concerning possibilities for serving as professional learning communities for faculty. Participants consisted of 98 faculty in different regions of Australia belonging to online communities with diverse teaching experiences. The results reflected that participants sustained their engagement from 1 to 3 years in the online professional learning communities (Duncan-Howell, 2010). The researchers noted that data indicated the faculty who belonged to online communities involved in the study committed 1–3 hours per week in professional learning communities. The outcome of the study represents an additional 60–80 hours per year spent on professional learning (Duncan-Howell, 2010). Study results indicated that membership to online communities provided faculty a meaningful

way to train and support their development (Duncan-Howell, 2010). From this study, professional learning communities might offer a valuable alternative to traditional professional development. In addition, Duncan-Howell (2010) noted that the most significant result collected from the survey was that 86.7% of members considered the experience to be a meaningful form of professional development.

Collaboration and professional learning communities share many of the same traits. DuFour (2004) stated, "To create a professional learning community, focus on learning rather than teaching, work collaboratively, and hold yourself accountable for results" (p. 6) in reference to Professional Learning Communities (PLCs). Blankenstein (2010) used the term "professional practice forums" to describe how faculty can collaborate by sharing concerns, best practices, and strategies for instruction (p. 153). Collaboration provides the online instructor an opportunity to learn from other online instructors and share ideas. The goal of the professional learning community is to help online faculty understand and learn from their peers (Kabilan et al., 2011). The professional learning community focus allows faculty to communicate and develop skills with their peers while developing a sense of camaraderie (Kabilan et al., 2011). Duncan-Howell (2010) stated that professional learning communities provide a connection to other peers. Online professional learning communities offer a chance for faculty to engage with their peers and gain insights to others experiences.

Online PLCs offer other advantages. Roberts et.al (2006) offered that PLCs create an opportunity to take the practice of teaching from private to public. Teaching in private means faculty work in isolation and do not share their practices with others. One study of 20 colleges and universities who had higher than predicated graduation rates found that the most important difference among these schools was an intentional focus on improvement that came from sharing practices through PLCs (Roberts et al., 2006). Online professional communities propagate the sharing of ideas and practices when members share their experiences (Kabilan et al., 2011). Similarly, online forums are a suitable approach for supporting collaboration and professional development through networking with other professionals (Davis & Resta, 2002). Finally, as Duncan-Howell (2010) mentioned, online professional learning communities provide a cooperative medium to collaborate around effective teaching strategies.

Other educational settings reflect similar results about the advantages of PLCs. Although the following quote is about K-12 educational communities, it offers relevancy to higher education PLCs. The National Commission on Teaching and America's Future (2002) encouraged the implementation of professional learning communities:

> Quality teaching requires strong professional learning communities. Collegial interchange, not isolation must become the norm for faculty. Communities of learners can no longer be considered utopian; they must become the building blocks that establish a new foundation for America's Schools. (p. 17)

Many studies noted the concepts of collaboration, PLCs, mentorships, and teaming as concepts utilized in educational practices. Although the procedures for collaboration may look different between faculty from different institutions of higher education, many faculty seek to collaborate with peers (Coughlin & Kadjer, 2009). Collaboration takes form in a bevy of different ways, and the evolution of collaboration is noted by Coughlin and Kadjer, who stated "Whether expressed as the peer coaching model in the 70s and 80s, Professional Development Schools in the 80's through the present, or current day professional learning communities, collaboration is increasingly central to emerging models for professional development" (p. 4).

BARRIERS TO VIRTUAL COLLABORATION

The culture of higher education does not always welcome collaboration (Donnison et al., 2009; Kezar & Lester, 2009). The research team of Stevenson et al., (2005) noted possible reasons that higher education faculty do not collaborate, which included: a philosophy of private practice, lack of collaborative tools, and time. Donnison et al., (2009) added that the autonomous practices in higher education promote isolation. Kezar and Lester (2009) added that the division and fragmentation of faculty into separate departments is a fundamental principle of higher education faculty who develop a habit of working independently may not be open to the concept of collaboration. Characteristics of higher education institutions include competition for recognition, which can manifest as individualism (Donnison et. al, 2009). Overcoming a competitive culture serves as a

significant barrier to virtual collaboration among higher education faculty.

READINESS FOR VIRTUAL COLLABORATION

Readiness to collaborate requires knowledge about best practices for virtual collaboration. Even when faculty decide to join a professional learning community, they do not always understand the correlates of effective collaboration. Fullan (2006) noted:

> The term [professional learning community (PLC)] travels faster and better than the concept. Thus, we have many examples of superficial PLCs – people calling what they are doing 'professional learning communities' without going very deep into learning, and without realizing that they are not going deep. (p. 6)

Faculty should seek meaningful collaboration experiences that is tailored and customizable to their needs (Brooks & Gibson, 2012). Blankenstein (2010) noted several elements to reassuring readiness for collaboration in the K-12 setting, including motivation and commitment. Not all faculty welcome collaboration (Blankenstein, 2010). The term private practice describes faculty who close their doors to teach in isolation (Blankenstein, 2010); faculty who teach in isolation, or "private practice" do not have a readiness level to collaborate virtually.

According to Brooks and Gibson (2012), many online collaboration communities are vacant because to be successful, these forums require participants who are willing to contribute. The skills necessary to manage a collaborative activity are not natural to most individuals (Dittman et al., 2010). The skill set necessary for virtual collaboration includes developing a system to perform work, setting goals, and creating channels of communication (Dittman et al., 2010). Confounding the lack of skills is the active nature of participation in Internet mediums (Schunk, 2008). Faculty need motivation to collaborate to improve their teaching skills, and Fullan (2006) cautioned that external motivation is not enough and that readiness for change comes from the internal desire to improve. Dolan (2011) added that the lack of social cues influences motivation, trust, and ultimately job satisfaction with many remote employees leaving their positions or disengaging from the organization. The lack of motivation may be a barrier for remote online adjuncts if they are not willing to contribute to online collaboration.

Unwillingness to contribute is based on a number of factors. Faculty may find locating a online group to collaborate with overwhelming, due to the sheer volume of Internet communities, forums, and people. For example, LinkedIn, a professional networking site had the following message posted on its website, "As of September 30, 2012, LinkedIn operates the world's largest professional network on the Internet with over 187 million members in over 200 countries and territories" ("LinkedIn Facts," 2012, para. 1). A search of the LinkedIn site by the researcher found 13 different communities using the key word 'adjunct' in the search menu. The largest group contained 4,288 members and the smallest group contained two participants (LinkedIn, 2012). Finding a virtual collaboration group, partner, or site presents a barrier in spite of, or potentially due to a myriad of options.

Remote online adjuncts may also find difficulty starting virtual collaboration because finding other faculty members who share the same ability levels and reasons for collaboration is difficult (Dolan, 2011). Researchers cautioned that seeking others who have identical teaching personalities and experiences can be detrimental (Brooks & Gibson, 2012). Participants should avoid finding compatible participants to collaborate because the practice does not lead to growth that usually evolves from thought-provoking circumstances (Brooks & Gibson, 2012). Although faculty might seek collaborating with others who have similar characteristics, the comfort of collaborating with like-minded peers may interfere with successful collaboration.

A further barrier to faculty virtual collaboration is that they do not find Internet forums a natural means for communication and therefore rely on the familiarity of modes such as email (Brooks & Gibson, 2012). Researchers found some faculty members took an extended time to transition to the idea of online teaching and required time and assurance to move fully to virtual collaboration (DeRosa et al., 2011). The study by DeRosa et al. (2011), found that Internet users became complacent in the applications they use to communicate. Successful virtual collaboration requires participants' readiness for using the Internet for communication and a willingness

to try new modes of communication (DeRosa et al., 2011).

COMMUNICATION OBSTACLES

Virtual platforms may pose communication obstacles because of the distance and differences in technology between collaborators (DeRosa et al., 2004). Virtual communication stunts the use of emotions and nonverbal cues (Garrison et al., 2000). Emotion indicates social presence, but in a text-based environment, representing feelings becomes difficult (Garrison et al., 2000). Lack of emotions can impede communication when collaborators are from different cultures and rely on nonverbal cues and gestures to interpret interaction (DeRosa et al., 2004). Without social cues, online communication and collaboration may frustrate participants. Visual cues are a significant mode of communication in face-to-face situations and the lack of visual prompts may act as a barrier in virtual collaboration.

Forming virtual communities takes more than writing words on a screen (Sistek-Chandler, 2012): the messages need to be succinct and convey clarity in the communication. Betts (2009) offered that preparation to collaborate requires an understanding of the differences in face-to-face versus virtual communication. Garrison et al., (2000) described the components of a quality virtual message as one where " . . . the tone of the messages is questioning but engaging, expressive but responsive, skeptical but respectful, and challenging but supportive" (p. 15). In one study, the researcher examined communication and the interpretation tone of e-mails to find that participants overestimated their ability to interpret the meaning of e-mails sent and received (Betts, 2009). Virtual communication and collaboration conducted through virtual communities can be challenging.

Davis and Resta (2002) noted several of these challenges: prioritizing other group members' needs through responsiveness to e-mail, taking the necessary time to collaborate, and sharing feelings. Tensions can easily form from lack of communication or absence of strong or agreed upon rules (Bauerlein, 2011; Hemetsberger & Reinhardt, 2009). For example, a member not replying to an e-mail within a timeframe that the other participant expects can cause frustration (Sarker & Sahay, 2003). Online communication can give new meaning to the phrase, 'lost in translation' (Garrison et al., 2000).

Computer mediated communication does not offer the same feedback as face-to-face interaction. When people collaborate in traditional settings, face-to-face conversations play a significant role in determining the effectiveness and satisfaction of the experience by the physical reaction or evidence of understanding the listener provides (Kabilan, et al., 2011). The absence of face-to-face communication jeopardizes the ability to create common ground among the collaborators, which may lead to communication failure (Kudaravalli & Faraj, 2008). Understanding the lack of cues usually relied upon in face-to-face communication; faculty must plan for a lack of non-verbal signals and find other means for meaningful exchanges (Betts, 2009). Online communication does not provide the same subtleties to sustain group work as face-to-face exchanges (Garrison et al., 2000) and thus participants must be mindful of this lack of visual and social cuing.

TRUST

Without social and visual cues, trust in fellow participants becomes imperative to successful online collaboration. Several researchers found that trust is an integral component of successful virtual collaboration (DeRosa et al., 2004; Jarvenpaa & Leidner, 1999; Moore, 2006). Trust and common purpose characterize successful collaboration experiences among professional learning communities (Moore, 2006). Of all of the influences required to create and maintain a positive experience in virtual collaboration, trust may be one of the most significant (DeRosa et al., 2004; Jarvenpaa & Leidner, 1999). Trust permits participants to establish norms that guide online interactions (Bowditch et al., 2008). Trust also influences how much a participant shares and the attitude toward accepting others' criticisms (Hu et. al, 2011).

Virtual collaborators who never meet face-to-face may experience difficulty trusting each other because virtual meetings do not reinforce social relationships, shared values, and expectations (DeRosa et al., 2004). Brown et al., (2004) noted that "For participants accustomed to face-to-face contact, the uncertainty and ambiguity inherent in virtual relationships is likely to raise doubts that may constrain interactions and

transactions—and trust, by definition, mitigates such constraints" (p. 116). Individuals engaging in face-to-face collaboration use signals such as changes in vocal patterns, body language, and facial expressions to establish trust (Hall, 1999).

An opposing view suggested building relationships is easier and more readily accepted with successful online communication practice (Jarvenpaa & Leidner, 1999). Experienced individuals who learned to trust others through virtual communication may report fewer difficulties with social processes such as trust (DeRosa et al., 2004). Participants lacking virtual collaboration experience may not comprehend the factors needed to build online trust. Jarvenpaa and Leidner stated:

> In virtual interaction, trust is likely to be particularly important because collaboration can be effective only if both parties enter into it with a willingness to open themselves to one another and cooperate in carrying out a task, solving a problem, and learning. (p. 117)

Some online communities have bulletin board systems that allow users to share profiles that include pictures, research interests, and contact information. Sharing personal information helps members of the communities get to know each other and discover others who share similar interests or backgrounds (Fichter, 2005).

Researchers recognized trust is a foundation of cooperative behavior such as collaboration (DeRosa et al., 2004; Jarvenpaa & Leidner, 1999; Moore, 2006). Trust is a common barrier to virtual collaboration (Brown et al., 2004; Jarvenpaa & Leidner, 1999). The lack of face-to-face interaction sometimes leads to heightened suspicions and lack of trust by collaborators (Hughes et al., 2002). The absence of trust creates an environment in which participants do not feel safe to share experiences and therefore may lead to difficulties with sustaining ongoing communication.

SUSTAINABILITY

The inconsistent community of participants may present another barrier to effective online collaboration (DeRosa et al., 2004). The instability of participants leaves a collaborative group in an indeterminate state. When membership rapidly fluctuates, quality of virtual collaboration suffers and unreliable or sporadic participation impedes virtual collaboration (DeRosa et al., 2004). When participants have different agendas or reasons for collaboration, communication frequently fails. Hemetsberger and Reinhardt (2009) found that contradictory goals impede virtual collaboration, which may cause participants to lose their desire to contribute and leave the forum. Longer periods of collaboration and meaningful dialogue increase the levels of sustainability. Association with others who do not substantively participate or who only interact for a short period may lead to failed collaboration (DeRosa et al., 2004). However, the ability to cooperate in an online atmosphere does not equate to social connectivity or guarantee the development of a relationship with others that last (Dolan, 2011).

Continued communication and inquiry are two elements needed by the community to construct meaning (Sistek-Chandler, 2012). Although creating an online collaboration system through Google, Yahoo groups, and other sites is easy, participation requires commitment to make collaboration valuable and long-lasting (Brooks & Gibson, 2012) and sustaining dialogue may be problematic for some participants. Another facet of nourishing a virtual community requires prolonged interchange. Because virtual participants' geographical locations vary, they do not always share a common background or experience (Kudaravalli & Faraj, 2008). The group is more likely to sustain attendance when participants experience ownership or loyalty because of the sharing of commonness with others. The group must share the responsibility for prolonged, meaningful, sustained dialogue, underscoring the need for trust among participants.

Time is also a factor in sustaining virtual collaboration. Online remote adjuncts spend a great deal of time managing their online courses (Kim & Bonk, 2006). Many courses have a large student population, which could leave an instructor grading 30 to 40 papers a week (Brabazon, 2002). To add to their already heavy workload, Brabazon suggested that an assumption already exists that faculty are not compensated for much of their work or training. The lack of compensation may lead to a sense of resentment about added obligations and demand that a learning community could place on a remote online adjunct (Brabazon, 2002). The best intentions to collaborate

may not be sustainable because of time constraints. The lack of time committed to the online community results in a lack of social presence (Kim & Bonk, 2006).

SOCIAL PRESENCE

Negative experiences in virtual collaboration may arise from social causes. Various researchers include and define social presence as a key element in online communication (Betts, 2009; Bingham & Conner, 2010; Hawkins et al., 2012; Hughes et al., 2002). Social presence provides a sense that others are present and is necessary for virtual collaboration in which the participants have never met in person (Hughes et al., 2002). Virtual worlds should allow participants to feel as if they are working together and sharing a space (Bingham & Conner, 2010). Betts conveyed the importance of online faculty feeling connected to a group that maintains communication through online communities. In addition, the research team of Hawkins et al., (2012) found social presence to be an ability to portray oneself as a genuine person in an online comunity. According to Garrison et al., (2000) participants in computer conferences who never met the other participants find the lack of visual cues challenging to establishing the sense of having a conversation with a genuine person (Garrison et al., 2000). Social presence gives the collaborators a sense of emotional connection to others when online (Scarpetta, 2008).

Taking turns or remembering to respond to others provides a sense of social presence (McConnell et al., 2012).Transmitting documents, responding to requests, and acknowledging receipt of documents or messages facilitates turn taking (Sarker & Sahay, 2003). In a 12-week study of online collaboration of novice faculty, Davis and Resta (2002) noted that virtual collaborators found it challenging to remember to respond to e-mails. Participants expect that the receivers will respond in a turn-taking fashion. Disruptions to turn taking happen with easily distractible participants. McConnell and research partners described some of the distractions that can interrupt virtual meetings and communication as pets, family members, and telephones. These interruptions can lead to a lack of social presence or the sense that the other participant is not attending.

Strategies to incoporate a feeling of social presence into virtual collaboration are complex. Social presence must compel the participants to navigate through the community (Sistek-Chandler, 2012). Social presence requires more interaction between participants than simply reading discussion posts or e-mails (McConnell et al., 2012). A differentiation exists between a collaborative community where inquiry occurs and a place where people go to find information (Garrison, 2006). Social presence requires purposeful interactions among participants. For example, when users create fake identities for communicating with others, social presence is not reinforced (Schunk, 2008). Hawkins et al., (2012) specified, "Indicators of social presence include humor, self-disclosure, and the use of informal language to show affection" (p. 126). Hemetsberger and Reinhardt (2009) noted that technology usually follows agreed upon social rules and norms to create social presence. These rules and norms include cooperating with others, sharing of information, and acceptance of new collaborators (Hemetsberger & Reinhardt, 2009). Social presence comes from representing oneself in a realistic form, while following group norms. The interaction required to develop social presence may be difficult for first time users of social networking sites or virtual collaboration forums.

Further, Garrison et al. (2000) viewed social presence as necessary for personal fullfillment so that the participants continue to contribute to the collaborative experience. In addition, social presence develops through "familiarity, skills, motivation, organizational commitment, activities and length of time using the media" (Garrison et al., 2000, p. 13). Duncan-Howell (2010) found that online communities are not inhibited by time, which provides members to fluctuate in terms of participation, unlike face-to-face collaboration in which specific timelines are in place. Researchers Garrison et al. stated "Social presence in the form of socio-emotional communication is possible in computer mediated communication, but not automatic" (2000, p. 13); thus, these goals are achievable with signifigant commitment from participants. Bauerlein (2011) stated that socialness is achievable through the Internet, but more research should be conducted to find if these connections could be satisfying enough to warrant continued collaboration.

TOOLS

The popularity of the Internet led to great advancements in terms of collaborative tools. The

advancements and variety of collaboration tools on the Internet offer both advantages and disadvantages. According to Xu et al., (2008) the first examples of virtual collaboration tools included e-mail, chat, whiteboards, and file sharing. Specifically, e-mail is still a major communication tool for virtual collaboration (Fichter, 2005; Sistek-Chandler, 2012). Hu et al., (2011) saw the variety of social media tools as a benefit for online collaborators. However, Fichter noted that the large selection of Internet tools is a disadvantage of successful virtual teamwork, as too many tools might overwhelm collaborators. Fichter (2005) added that virtual collaboration failure could result from unusable software that requires complex routines.

A useful Internet tool for virtual collaboration must meet the needs of the participants (Schunk, 2008). Specifically, the tool should be easy to use and accommodate a wide variety of users. Many people do not have time or desire to learn different tools (Fichter, 2005; Hu et al., 2011). Schlager et al., (2009) mentioned that professional networks between educators are a growing movement, but Jarvenpaa and Lediner (1999) cautioned that user acceptance of the technology is only one ingredient to successful collaboration. Advocates of virtual collaboration may argue that an online remote adjunct teaches in a virtual world and therefore should have the basic skills required to navigate the Internet, but some remote online adjuncts might not feel comfortable outside their own online classrooms and might not use outside resources provided by the Internet (Shattuck et al., 2011). Schunk (2008) found that technology only has value when it aids in finding solutions to the dilemmas that people are trying to solve; indeed, the prolific development of online products responds to the problems people encounter online, but the sheer quantity of these products may present further issues to users.

Bauerlein (2011) found that "users are remarkably good at repeated tasks on their favorite sites [but], they're stumped by the smallest usability problems when they visit new sites for the first time" (p. 55). Too many collaboration tool choices leads to users feeling overwhelmed by the available options (Xu et al., 2008). Virtual collaborators feel comfortable navigating known Internet sites because of the familiarity with the tools (Xu et al., 2008). Bauerlein added that "first-time visitors to a site don't have the conceptual model needed to correctly interpret menu options and navigate to the appropriate place" (p. 56). This confusion leads to prematurely exiting the site before accomplishing meaningful work. Online collaborators require a platform that offers a user-friendly infrastructure. Farooq et al., (2008) studied the need for design interventions to foster online community and collaboration for educational professionals. To facilitate virtual collaboration, tools need to allow for efficient and easy collaboration (Xu et al., 2008).

Restrictions of some Internet collaboration tools hinder communication: Twitter is one example of a restrictive tool that participants use for virtual collaboration. Although Twitter is advantageous as a tool for virtual collaboration, Twitter limits the user to typing a small amount of characters into the response (Alderton et al., 2011) and for new virtual collaborators, the limited characters cause dissatisfaction. In a dissenting study by Alderton et al., (2011) researchers found Twitter to be an effective collaborative tool for educators. One part of the study looked at dialogue between the participants to show evidence of collaboration versus unidirectional sharing of information (Alderton et al., 2011). The researchers coded the dialogue to differentiate between collaboration and conversation. They noted that the survey results indicated that 9 of the 10 participants gave concrete examples of collaboration that occurred with fellow Twitter users. The researchers found that because of the limits of a 140-character message, the participants used Twitter as a place to make initial connections but moved their collaboration to other venues (Alderton et al., 2011). Researchers offered one way to measure the usefulness of a virtual collaborative tool by comparing the tool to traditional face-to-face communication as well as the amount of effort necessary to use the communication medium (DeRosa et al., 2004).

Another problem unique to virtual collaboration are the perceptions that software is difficult to use or users experience problems with connectivity and access (Hughes et al., 2002). Tools that take too much time to learn can be drawbacks for virtual collaboration (Fuchs, 2011). Finally, contradictory technical skill levels among participants may also inhibit efforts causing nervousness, misperception, and ineffective collaboration (Ge, Yamashiro, & Lee, 2000). Understanding how to use the technology and experiencing technical difficulties hinders communication, interaction, and virtual collaboration among participants, generating frustration (Ragoonaden & Bordeleau, 2000). Even with 3 years and more experience, participants in one study still struggled to use Internet tools (Bauerlein, 2011). Collaborators may find that virtual collaboration is too difficult because of the software and Internet tools.

Summary of Barriers

Several barriers exist for successful virtual collaboration. First, individual readiness levels might influence virtual collaboration. Second, communication obstacles provide a barrier to understanding other intentions because the lack of visual cues. Next, participants have difficulty developing trust in online forums. Another barrier to virtual collaboration is sustainability. An inconsistent community of participants is a barrier to creating a cohesive group (DeRosa et al., 2004). A lack of social presence may also deter participants from virtual collaboration (Garrison et al., 2000). The true attention belongs on what the tools support in terms of collaboration. The tools themselves can serve as a barrier to virtual collaboration (Sistek-Chandler, 2012). Understanding the barriers provides remote online adjuncts and higher education administration with an understanding of what issues inhibit successful virtual collaboration.

BENEFITS

The benefits of virtual collaboration are similar to face-to-face collaboration benefits. The following section will focus on three benefits of virtual collaboration: overcoming isolation, providing a social context, and creating professional development opportunities. An online remote adjunct works in isolation from a home computer. One possible benefit of virtual collaboration is a decrease in the sense of being isolated from peers (Scribner-MacLean & Miller, 2011). Another benefit of virtual collaboration is the social connectivity that online communities provide. Social contexts provide an important outlet for learning (Greene, 2008). Researchers found that virtual collaboration is an effective means to professional development among higher education faculty (Dolan, 2011; Puzziferro-Schnitzer, 2005).

OVERCOME ISOLATION

In a brick and mortar building, faculty can meet in a lounge or by the water cooler to socialize (Bauerlein, 2011). Remote online adjuncts do not have a physical faculty room to socialize with their peers, although some online universities do offer online faculty forums. The sense of isolation may affect an online remote adjunct's performance (Scribner-MacLean & Miller, 2011). Dolan (2011) stated that limited opportunities for communication with peers appear to be harmful to morale, leading to lower performance. According to Shea (2007) less experienced instructors are not motivated to teach online because of the newness of online training, inability to watch others teach online before attempting online teaching, and inadequate time to learn about online teaching. Brooks and Gibson (2012) found that faculty show interest in virtual collaboration because of curriculum needs or the desire to communicate and receive advice from peers.

Isolation experiences come from feeling like an outcast by the academic mainstream (Dolan, 2011). Shea stated ". . . a perennial concern is that online learning may be marginalized from the core cultural practitioners, i.e. traditional faculty, and reside at the periphery of college life with the stigmatizing impact that such marginalization implies" (2007, p. 12). Virtual collaboration may offer a solution to isolation and a sense of being unsupported. People are social; Bingham and Conner (2010) stated that people always have wanted to connect, communicate, and share with one another. Instructing online without face-to-face interaction may influence an adjunct's view of teaching. To this, Dolan (2011) added that without opportunities for socialization, low morale could lead to less effort and lower quality of instruction.

Paloff and Pratt (2001) provided further impetus to examine online teaching because faculty isolation may result in an online program that appears fragmented. Remote online educators without a strong sense of connectedness to their employing institution often have less dedication and contribute to faculty attrition (McLean, 2006). Nationally, adjuncts teach one-third to half of the courses and represent approximately two-thirds of all community college faculty (Puzziferro-Schnitzer, 2005), and thus their sense of connection to their colleagues and the institution is critical to effective instruction. Bingham and Conner (2010) found that people desire a chance to collaborate and feel connected to others. Duncan-Howell (2010) added that the Internet provides opportunities for virtual collaboration so that remote online adjuncts might connect with their peers.

One form of virtual collaboration with positive results comes in the form of online mentorships. Some

universities offer their new online adjuncts virtual mentorships as a means for initial training and professional development (Bauerlein, 2011). According to Roberts et al., (2006) peer mentors provided an effective way to help new faculty transition to and online teaching. Mentors play an essential role in helping new faculty overcome the sense of isolation. The mentor can also act as a point of contact, which helps remote online adjuncts become more effective and successful instructors (Puzziferro-Schnitzer, 2005). One role of the virtual mentor is to communicate with the new faculty and offer suggestions about instruction, pedagogy, and using the technological tools specific to the institution (Puzziferro-Schnitzer, 2005). The researchers also added that mentoring is a meaningful way to support, coach, and improve instructional strategies and teacher effectiveness.

In a self-study, Roberts et al., (2006) documented the transition from face-to-face teaching to online teaching in the educational leadership department at Western Carolina University (WCU). One result of the study showed that faculty at WCU could connect socially to each other (Roberts et al., 2006). Although faculty reported working in isolation before the transition to online teaching, afterwards the instructors reported a feeling of friendship among their colleagues because of virtual collaboration (Roberts, et al., 2006). The online faculty learning communities at WCU provided a safe venue to vent frustrations and ask for assistance (Roberts et al., 2006). Kabilan et al., (2011) found similar results with K-12 faculty who moved to online teaching. Participants who had worked in isolation found virtual collaboration to remove traditional notions of working alone and reported benefits from the experience (Kabilan et al., 2011). Virtual collaboration benefitted participants in the evolution from face-to-face to online teaching (Kabilan et al., 2011; Roberts et al., 2006).

Simple forms of virtual collaboration such as e-mail remove the traditional barriers of time and space (Davis & Resta, 2002). E-mail helps to develop and lengthen virtual conversation and offers an ability to extend the boundaries of geography (Davis & Resta, 2002). Even with other advancements, e-mail is an important way to collaborate (Xu et al., 2008). One benefit of virtual collaboration via E-mail is the ability for archiving. Storing computer-mediated communication gives the collaborators time to reflect and provides control of interaction time (Seddon, Skinner, & Postlethwaite, 2008).

Other forms of virtual collaboration present participants the ability to enter into continual discussion. Instant messaging provides users the chance to collaborate and offers immediate gratification by providing real-time immediate response (Fichter, 2005). The interactive capabilities of instant messages or chat features allow virtual collaborators to feel a sense of connection to others. The benefits of virtual collaboration include a variety of ways that users can connect to others in discussion.

Research team Hawkins, Barbour, and Graham (2012) recommended the virtual schools seek methods to incorporate social media to reduce the feelings of isolation that come from remote online teaching. They also noted in their K-12 virtual high school case study that online faculty felt disconnected from other online faculty. The participants expressed feelings of disconnection and isolation. The researchers suggested that the faculty create a virtual staff room so that faculty could collaborate, socialize, and share practices (Hawkins, et al., 2012). Socialization opportuntuies are one means for decreasing the isolation that a remote online adjunct may experience. Understanding the social learning theory provides insights into how remote online faculty might overcome isolation.

Dolan (2011) researched 28 adjunct faculty members' views on motivation in a qualitative grounded theory study. One of the common findings was that adjuncts felt disconnected from peers and the college. Dolan (2011) established that an absence of communication and engagement in collaboration led to a lack of identification with the college. He also found from participant interviews that adjuncts desired a means to learn from peers and thought the communication would make them better faculty. The impact on faculty engagement for this unique set of employees still requires attention.

SOCIAL CONTEXT: VYGOTSKY AND BANDURA

In addition to overcoming social isolation, it is important to consider the Social Learning Theory which emphasized education that takes place in a social setting. Two psychologists led the way in the social learning

theory: Vygotsky and Bandura. First, Vygotsky's sociocultural theory viewed the construction of learning through social interactions (Alderton, et al., 2011). One of Vygotsky's main premises was that learning does not occur in isolation (Schunk, 2008). Observational learning, imitation, and modeling are three key components of the social learning theory (Ormrod, 2003). Bandura (1977) stated, "Learning would be exceedingly laborious, not to mention hazardous, if people had to rely solely on the effects of their own actions to inform them what to do" (p. 22).

Researchers consider Vygotsky's theory of social learning a constructivist approach (Schunk, 2008). Researchers further stated that a constructivist approach is one in which social experiences create knowledge (Schunk, 2008). The PLC originates from a social constructivist view of knowledge that considers the exchanges and relationships to be an integral part of understanding new concepts (McConnell, et al., 2012). Social learning theorists Bandura (1991) and Vygotsky (1978) found that learning is highly social and naturally collaborative. Alderton and associates (2011) suggested that faculty needed to collaborate with others for guidance to reflect upon and change their practice and participation in a virtual collaborative mentorship may fill a social need for remote virtual adjuncts. Seddon et al., (2008) added that participants could experience motivation from engaging in virtual collaboration.

Virtual collaboration may begin for one reason but continue because of a different motivation or unintended outcome. Some of the reasons to continue collaborating may include wanting to make more meaningful changes, desiring a social connection to a group, or a need to develop more as a professional (Seddon et al., 2008). Vygotsky (1978) emphasized the interpersonal nature of social learning and according to Schunk (2008) he revealed that a social atmosphere was necessary for learning. Fullan (2006) stated, "Professional learning communities are in fact about establishing new collaborative cultures. Collaborative cultures, ones that focus on building the capacity for continuous improvement, are meant to be a new way of working and learning" (p. 6). Seddon et al. (2008) also found that the developing a virtual community could increase the diversity of a group and reduce competition while creating a culture of collaboration.

Studies in computer-mediated communication (CMC) rely on the idea that both human beings and technology require understanding within a social context (Hemetsberger & Reinhardt, 2009). Researchers ground virtual collaboration in a theoretical framework of social constructivism (Davis & Resta, 2002). In addition, Bonk (2002) defined key sociocultural terms such as scaffolding when researching virtual collaboration. Garrison (2006) noted that higher education communities require active social presence to establish significant and meaningful learning. Social exchanges and sharing of knowledge becomes open to the community, which improves learning (Greene, 2008). The Massachusetts Institute of Technology (MIT) recognized the importance of human connections, socialization, and collaboration by opening sections of its course content to the world (Schunk, 2008). In contrast, because virtual communication lacks social cues present in face-to-face collaboration, participants may find it easier to concentrate on the group project instead of on the commonalities and communicative intricacies of body language (DeRosa et al., 2004).

Although some studies suggested that the lack of face-to-face and non-verbal cues might impede virtual collaboration, others noted that missing cues might not be a detriment. Bauerlein found the Internet's ability to foster socialization surpasses naysayers' original opinions by "augmenting our people skills . . . widening our social networks, and creating new possibilities for strangers to share ideas and experiences" (2011, p. 33). The Internet is instrumental in fostering a social context for learning. Virtual collaboration fosters collective intelligences while establishing a means to avoid isolation through social situations (Bauerlein, 2011).

PROFESSIONAL DEVELOPMENT

"The Internet enables some of the best teaching minds to bond together in powerful learning communities" (Berry, Norton, & Byrd, 2007, p. 48) and online communities are common practice in education, offering many ways for adjuncts to share resources and apply new learning to their own practice (Puzziferro-Schnitzer, 2005). Professional development activities are one means to provide opportunities for instructors to increase their effectiveness by developing new knowledge and practicing new strategies (Anderson & Kanuka, 1997). Quality instructors yearn to learn new skills and pedagogy through professional development (Puzziferro-Schnitzer, 2005). In terms of developing as a professional, one suggestion that the research team of Hu et al., (2011) offered is that faculty may further their knowledge base through collaboration or by seeking advice from

a professional learning community. One way to limit teacher isolation and focus on professional development is with virtual learning communities.

The Association of American Colleges and Universities realized the significant role that collaboration plays in its vision of education (Schunk, 2008). In addition, Brooks and Gibson (2012) noted the following about effective online professional development:

> It allows professional development to be more relevant, meaningful and engaging to faculty because they are able to 1) have choices in their learning experiences (e.g. opting in and out), 2) take advantage of the flexibility of the technology (e.g. learn when and where it suits their schedules), 3) customize the experience (e.g. connecting with specific colleagues and researchers) and 4) have space to be reflexive. (p. 3)

Remote online adjuncts who teach in uncommon fields may find a solution for acquiring meaningful professional development through virtual collaboration. Virtual collaboration may offer a variety of professional development choices for faculty.

Virtual collaboration provides the pooling of resources from a range of fields (DeRosa et al., 2004). Bauerlein (2011) stated that virtual spaces for collaboration offer a means to gather and share collective knowledge and experience. Lifting the boundaries of time and distance provide more flexibility and applicability to different fields. Fullan (2006) also stated that professional development has to be meaningful to motivate people to put in the effort and reap the benefits of the activities. Virtual collaboration may also provide greater flexibility and freedom in terms of training because online adjuncts do not experience confinement to a traditional workday or place (DeRosa et al., 2004). Budget constraints may also limit the availability of guest speakers, renting conference rooms, and travel expenses. However, well-designed virtual collaboration as a means for professional development can be affordable and not limited by the restrictions imposed on face-to-face faculty (Brooks & Gibson, 2012).

Fichter (2005) noted several reasons for virtual collaboration as a means to professional development, "Some collaboration initiatives are targeted specifically at communities of practice, helping them find specific information on a topic, share successes, develop best practices, replicate ideas, and identify experts" (p. 48). Virtual collaboration permits faculty a chance to view their online classrooms and practices from a new perspective. The self-reflective practices heighten their understanding of their own professional strengths and weaknesses, which fosters investigating pedagogy and teaching philosophy (Kabilan et al., 2011). Brabazon (2002) found that too much emphasis is placed on design issues in online education instead of on faculty training. Bingham and Conner (2010) suggested that faculty should begin virtual collaboration by learning through trial and error. Professional development provides a means for remote online faculty to test ways of virtual collaboration and learn best practices in a safe environment.

A significant body of research shows that professional development needs to be meaningful and flexible to meet the time restrictions of the participants (Brooks & Gibson, 2012). The adjuncts have time constraints for training because many remote faculty work for multiple universities or in a separate full-time position. Davis and Rose (2007) offered a change in the way professional development occurs, shifting from all day marathon sessions to shorter dashes using virtual methods. Schunk (2008) further noted that a university should provide for the development of an online faculty community for faculty to share effective pedagogy. The research supports the need for high quality professional development for online faculty. Brabazon (2002) demanded more attention be paid to online faculty training "The laissez-faire attitude to teacher training has relied on 'gifted amateurs' rather than structural change to initiate Internet-based education" (p. 13). Although the role of virtual collaboration in professional development of remote online adjuncts remains undetermined, many of the elements in face-to-face professional development share the same needs as virtual collaboration.

THE STUDY

A major obstacle to understanding virtual collaboration is the lack of appropriate frameworks, tools, and techniques to study it (Schlager et al., 2009). The literature review did not reveal a specific tool or technique for studying virtual collaboration. A validated survey instrument was unavailable even after contacting several of the key authors in the field. To understand how remote online faculty collaborate virtually, this study needed to address their lived experiences. The nature of this study required a qualitative method to understand the specific ways that remote online faculty collaborate virtually.

The purpose of a qualitative approach was to investigate the unknown variables needing exploration (Creswell, 2009). Because the study sought to find the current virtual collaboration practices of remote online faculty, the study needed to review the lived experiences of remote online adjuncts' virtual collaboration practices. Specifically, the design employed a phenomenological approach to understanding virtual collaboration practices of remote adjunct faculty. The main purpose of this study was to conduct exploratory qualitative research to determine the virtual collaboration experiences of remote online adjuncts and create a model of lived experiences in the form of a transcendental phenomenological approach to describe the virtual collaboration experiences of remote online adjuncts. Creswell (2007) stated, "Moustakas's transcendental or psychological phenomenology is focused less on the interpretations of the researcher and more on a description of the experiences of the participants" (p. 59).

For this qualitative study, selection of the participants occurred by collecting a specific group of participants. First, participants met a defined set of operational criteria through preliminary screening, whereby candidates qualified to serve as participants (Yin, 2008). The screening took place via an e-mail to a list serve asking for volunteers to participate in the study, specifically those faculty who had experience with virtual collaboration and were remote online adjuncts. The inclusion criteria was as follows:

1. Participants must only work online from their home computers and not attend a physical campus. Participants must be telecommuters who are isolated from their peers and do not attend a brick and mortar building.
2. Participants must not have any opportunities to collaborate face-to-face with their colleagues.
3. Participants must only work as adjuncts who are part-time employees.
4. The participant can work for more than one college, but all work must be done from the home computer. If the adjunct steps onto a physical campus, he /she is not eligible to participate in the study.
5. Participants need to have a minimum of three years' experience as a remote online adjunct.
6. Participants must also have experience with virtual collaboration.

The purposeful sample intentionally samples a group of people who can best inform the researcher about the situation (Creswell, 2007). Several sources of data provide a broader overview of remote online adjuncts collaboration practices. Yin (2008) noted that the use of multiple sources of evidence permits a researcher to address the phenomenon in its totality. A background and demographic questionnaire provided information about the final selected participants; the purpose of this data was to formulate a description of the participants and prepared the data for analysis.

The final step of data collection resulted in phone interviews of the participants. The phone interviews took place separately, within two weeks of each other. The short time span allowed the researcher to adhere to the same phone interview protocol for all participants. Written permission from each participant allowed for recording of phone interviews. Recordings permit a more accurate rendering of the interview than any other method (Yin, 2008).

The semi-structured interview permitted follow-up questions and changing the order of the questions based on responses. Yin (2008) recommended that a study contain specific questions and intentions so that it stays within realistic parameters. With this in mind, the interviews guide the conversations instead of structuring the interviews with surveys (Yin, 2008). Semi-structured interviews allow the use of predetermined questions, while leaving space for probing beyond given answers (Esterberg, 2002).

CENTRAL QUESTION

What effective virtual collaboration practices are remote online adjuncts using to influence their teaching strategies and to develop as professionals?

SUB-QUESTIONS

1. What methods or approaches are remote online adjuncts using for virtual collaboration?
2. What are the reasons for virtual collaboration among remote online adjuncts?
3. What are the barriers keeping remote online adjuncts from virtually collaborating?
4. What are the benefits for remote online adjuncts who virtually collaborate?
5. What are the perceptions of remote online adjuncts about virtual collaboration?
6. What underlying themes, if any, emerge from remote online adjuncts experiences of virtual collaboration?

FINDINGS

The review of the literature provided the context to support the central question: What virtual collaboration practices are remote online adjuncts using to develop as professionals? From this question, the review of the literature categorized the benefits and barriers to virtual collaboration. The two categories helped establish the specific areas for exploration of the study. The interview questions and demographic forms were used to gather data to answer the central question. Nine themes evolved as follows:

Barriers
- Need for leadership
  - o Set clear roles
  - o Create opportunities for collaboration
  - o Connect collaborators
- Trust
- Lack of time
- Pressure to collaborate

Benefits
- Camaraderie (fellowship)
- Social Connections
- Scholarship- research
- Self-Reflection
  - o How do I measure-up?
  - o What is my performance compared to others?
- Pride

MEANING THEME 1- NEED FOR LEADERSHIP

The need for leadership in virtual collaboration among remote online adjuncts was apparent. First, a lack of norms, undefined roles, and the absence of social cues leaves participants unsure of what their responsibility is in virtual collaboration. There is a need for clear roles and a structure of consistency in virtual collaboration experiences. In many instances, the participants noted that collaboration happens haphazardly without leadership. Chen et al (2011) found that assorted participation without organization can cause "chaotic and ineffective learning" (p. 216). Two participants specifically noted that virtual collaboration required a shift in roles. Often they found themselves adjusting to be the learner or listener. Second, participants seemed to need a direction for their collaboration. For example, participants mentioned reasons for working on curriculum, creating rubrics, or sharing best practices, but felt that a faculty forum dedicated to collaboration would make the process easier. Last, participants expressed difficulty connecting with other collaborators. The participants were unaware of how to obtain contact information of other people working in their departments. Participants shared a desire to collaborate with others teaching the same courses, but did not know how to reach out to their peers. Some participants saw a disparity in how to begin collaborating because they did not know how to find

collaborators or where to collaborate.

MEANING THEME 2- CAMARADERIE (Fellowship)

Many participants found themselves positively transformed by their connection to their peers and colleges because of virtual collaboration. A number of remote online adjuncts responded that virtual collaboration unites them with others who share similar experiences. Virtual collaboration exposes remote online adjuncts to others who share a common language, have mutual problems, and understand the diverse issues of teaching online. Speaking the same language and sharing the same experiences was a source of comfort. Communication with others who share similar experiences is important to remote online adjuncts. Faculty members find it reassuring to hear what their peers are experiencing and interacting with peers helped the participants have a more positive experience while teaching remotely.

MEANING THEME 3- TRUST

Trust appeared to be offered freely by the participants in this study. Several remote online faculty emphasized an unspoken level of trust with online collaborators that is not existent in face-to-face situations. Several noted the need to focus on clear messages that were well-crafted and maintained positive tone to ensure the manifestation of trust. Importantly, several mentioned granting more trust to online collaborators because they felt their relationships were greater. Trust was highly valued by the participants.

MEANING THEME 4-SOCIAL CONNECTIONS

One of the most frequently voiced benefits of virtual collaboration was a social connection. Remote online adjuncts often feel alone and isolated. Many talked about the satisfaction that they have from socializing with peers. Several participants noted that virtual collaboration was their only connection to the university. One participant called it her "lifeline." Another participant referred to the strong connections made in virtual collaboration as "virtual friends." Social connections provided a link to their peers and different colleges represented by the participants.

MEANING THEME 5- SCHOLARSHIP (Research)

Participation in scholarship is an iterative process required by some of the participants' colleges. The pressure to publish seemed to be a catalyst for virtual collaboration. Ann shared the feeling of being pressured to publish in order to keep working in higher education. In addition, a need for acknowledgement by their employees thrusts remote online adjuncts into virtual collaboration. Remote online adjuncts see virtual collaboration as a means to publish articles, present at conferences, and participate in research through collaborative efforts.

MEANING THEME 6- SELF-REFLECTION- (HOW DO I MEASURE-UP? WHAT IS MY PERFORMANCE COMPARED TO OTHERS?)

Virtual collaboration provides impetus for self-reflection. Comparing oneself to others becomes an opportunity for remote online adjuncts to evaluate use of their own best practices. For several instructors, they recalled feeling anxious about teaching online. The lack of interaction with peers left them feeling unsure of their performance. Paralleling with their peers' practices helps some participants solidify what constitutes good practices in online teaching. In a sense, discovering what other faculty members do in their online courses did more than just help the participants affirm their own practices, it also expanded their definitions of quality teaching. All of the participants' shared that in some manner their virtual collaboration experiences helped enlighten their remote teaching practices. Moreover, the context for needing to know what others are doing seemed to correspond to their own self-actualization. Remote online adjuncts were more confident with the knowledge that peers use the same, or similar, protocols, practices, and procedures.

MEANING THEME 7- PRIDE

The remote online adjuncts expressed pleasure when contributing to the learning community. Actively

participating in a group enabled some to feel that they had given back or reciprocated to their peers. Supporting peers through mentorship and modeling created a sense of fulfillment to the remote online adjuncts. For many, the opportunity to engage in professional dialogue with their peers helps them to feel a sense of accomplishment. The participants viewed helping their peers as way to build pride.

MEANING THEME 8- LACK OF TIME

The lack of time appeared to create frustration for remote online adjuncts. Two of the participants noted that a misperception exists about virtual collaboration taking less time than face-to-face collaboration. Some remote online adjuncts had an opposing view of time and found that virtual collaboration saved them time because they did not have to drive to a specific destination. Some faculty noted that time adversely affected their ability to collaborate virtually because of living in different time zones. All of the participants acknowledged that without given adequate time, virtual collaboration would not succeed.

MEANING THEME 9- PRESSURE TO COLLABORATE

Central to the theme of virtual collaboration was a sense of pressure to improve or to publish. The particular contexts and colleges in which the participants taught influenced their views on the pressure associated with collaboration. The participants that worked for colleges that require publication felt pressured to collaborate. Others felt that they needed to be "seen" in collaboration with their peers by administrators. For some, the pressure to publish or conduct research changed the way they virtually collaborated by seeking out others who also shared the same goal. Two participants specifically mentioned that the colleges are expecting remote online adjuncts to engage in virtual collaboration. One participant mentioned that virtual collaboration is a prerequisite to serving as a faculty member. Several participants felt a sense of obligation to contribute to virtual collaboration.

SUMMARY OF RESULTS

All of the nine meaning themes could be construed as barriers or benefits of virtual collaboration. Nine units of meaning evolved from the collection of data: (1) Need for leadership (which was broken into 3 key parts: (a) clear roles (b) create opportunities for collaboration (c) connect collaborators); (2) Camaraderie (fellowship); (3) Trust; (4) Social Connections; (5) Scholarship (research); (6) Self-Reflection (How do I measure-up. What is my performance compared to others); (7) Pride; (8) Lack of time; (9) Pressure to collaborate. Self-reflection was an unexpected theme to emerge. Virtual collaboration provides a means to combine social learning with the remote online adjuncts need for self-reflection. The research on social learning discussed the need for learning appropriate behavior through imitation of others (Bingham & Conner, 2010). The participants in the study measured their own effectiveness by comparing themselves to what their colleagues are doing in the classroom. Because most adjuncts cannot visit their peers' online classrooms, virtual collaboration offers a means by which adjuncts can evaluate their performance against peers.

VIRTUAL COLLABORATION MODEL

One goal of the study was to create a virtual collaboration model of the lived experiences of remote online adjuncts. Figure 1 illustrates the methods or entryways of virtual collaboration. The model centers around the need for leadership. The model displays the social, personal and professional benefits of virtual collaboration. The model is also a pictorial representation of the 6 sub questions of this study. The model is intended to increase the knowledge of virtual collaboration practices for both remote online adjuncts and administrators of higher education.

Figure 1. Schieffer Virtual Collaboration Model for Remote Online Adjuncts
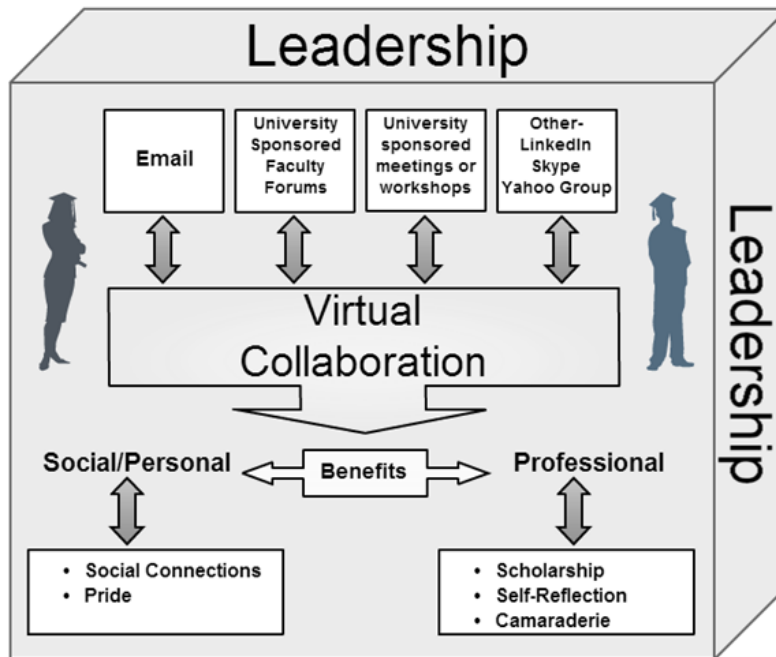
Implications for Educational Leaders of Higher Education

Remote online adjuncts are willing to virtually collaborate. Higher education leaders who are interested in providing virtual collaboration can create opportunities, define roles, and connect collaborators. The study also revealed ways that higher education leaders can continue to facilitate ongoing collaboration through workshops, faculty forums, and scholarship opportunities.

Remote online adjuncts want guidelines and methods for collaboration. Although it was unclear to what extent the adjuncts desire a rigid program, it was apparent that those colleges offering faculty forums should continue to look for ways to improve their use. A common misconception is that individuals within a group have the natural ability and skills to assemble and develop methods towards goal completion (Dittman et al., 2010). Shattuck et al. (2011), established that not all adjunct faculty are prepared for online training. Educational leaders should aspire to create a space that brings together the diverse talents of people and connects them in meaningful ways (Bingham & Conner, 2010).

Adjuncts want to connect to others and are unsure how to do so. For higher education leaders, consideration needs to be given to connecting aspiring collaborators with their peers. Shattuck et al. (2010), found that institutions that provide online training and collaboration for adjuncts do not always do so in a convenient manner. Workshops and content meetings seemed to be a useful method for remote online adjuncts to find others who teach the same courses. Although this study encompassed a large variety of fields such as business, education, nursing, economics, and liberal arts, all fields benefit from the implications of the study. Dittman et al. (2010) discovered that virtual teams require proven training, which will prepare them for a variety of collaboration conditions.

A sense of pressure to collaborate is felt by remote online adjuncts. Ideally, higher education leaders should search for ways to encourage virtual collaboration without creating a negative climate. Creating a system that empowers remote online adjuncts to enjoy the benefits of virtual collaboration without feeling pressured by the administration. In addition, Bingham and Conner (2010) found that a common way to increase employee satisfaction is to help employees understand "what is going on in the company" through communication (p. 5). An advisory or focus group may help educational leaders develop an approach to serve remote adjuncts in a positive environment.

CONCLUSIONS

Remote online adjuncts benefit from virtual collaboration. The study revealed the benefits and barriers to virtual collaboration. The benefits included: social connections to the colleges and peers, a means for self-reflect on practices, and developing camaraderie and a sense of pride while helping others. The barriers for virtual collaboration included a lack of leadership that is needed from institutions of higher education to provide collaborators with clear roles, opportunities for collaboration, and the means for finding other collaborators. Time is also a barrier that should be addressed by both adjuncts and administration.

A certain level of ambivalence exists around virtual collaboration and the barriers and benefits to remote online adjuncts. As the reach of online learning expands, more institutions of higher education will need to consider how to meet the adjuncts' needs for socialization, professional development, and virtual collaboration. The aim of this study was to extract the lived experiences of remote online adjuncts and better understand their lived experiences.

One of the most surprising findings of this study was that although trust was a concern for the participants, many of them declared that they were more willing to share with their peers in a virtual setting than face-to-face. The remote adjuncts reported giving a high sense of trust to their virtual collaboration partners from the onset of the partnership or group formation.

The results of this phenomenological study contribute to the body of knowledge of virtual collaboration among remote online adjuncts. Online and brick and mortar universities greatly depend on remote adjuncts to teach online classes. Attention needs to be paid to this population because of the integral role they have on the large population of online students. Finding ways to optimize adjuncts' professional development and connection to the online university is imperative.

Furthermore, while this study confirmed themes presented in current research, it also revealed new considerations about virtual collaboration. Some of the new discoveries included the need for leadership to create clear roles, connect collaborators, and create opportunities for collaboration. Another discovery was the desire for remote online adjuncts to use virtual collaboration to share in the pursuits of academic research and fellowship. Other findings included the importance of virtual collaboration as a gateway for self-reflection and as a means of pride. Additionally, a new barrier revealed was the pressure remote online adjuncts feel to collaborate. Finally, the study's discoveries provide potential direction for future research, including how to optimize the social needs of remote online adjuncts.

The benefits of virtual collaboration make it crucial to find solutions to the barriers. This study has shown that virtual collaboration affords faculty with the ability to be learners while simultaneously improving their morale and providing the opportunity for self-reflection. Remote online adjuncts experience isolation and the benefits of virtual collaboration yield valuable outcomes, including a social connection, a sense of pride, a feeling of camaraderie, and a chance to engage in scholarship. Virtual collaboration influences best practices, removes isolation, and offers a means for professional development, and is a highly valuable experience for the remote online adjunct.

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