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# A Deconstruction of the Distance Learning Milieu: Affinity Spaces in Higher Education

Kelly McKenna

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UNIVERSITY OF NORTHERN COLORADO

Greeley, Colorado

The Graduate School

A DECONSTRUCTION OF THE DISTANCE LEARNING  
MILIEU: AFFINITY SPACES IN  
HIGHER EDUCATION

A Dissertation Submitted in Partial Fulfillment  
of the Requirements for the Degree of  
Doctor of Philosophy

Kelly McKenna

College of Education and Behavioral Sciences  
Department of Educational Technology

May, 2016

This Dissertation by: Kelly McKenna

Entitled: *A Deconstruction of the Distance Learning Milieu: Affinity Spaces in Higher Education*

has been approved as meeting the requirement for the Degree of Doctor of Philosophy in  
College of Education and Behavioral Sciences in Department of Educational Technology

Accepted by the Doctoral Committee

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Date of Dissertation Defense March 31, 2016

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## ABSTRACT

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This research investigated the learning environment and social setting of a distance graduate higher education program. An embedded mixed methods design with a focus on qualitative research involving both faculty and students was employed. The methodology consisted of a multiple case study and cross-sectional survey completed by 22 students and three faculty. The research explored the learning space, who the stakeholders are, how the space is defined, and how the space is utilized. The creation of tangible visualizations allowed for an alternate perspective and enlightened insight into the distance learning space. An affinity space lens was applied in examination of the learning space to establish if affinity spaces can be aligned with higher education. Affinity spaces are effective learning environments that are physical or virtual places where individuals with a shared interest gather to facilitate learning, gain collective intelligence, and produce artifacts related to a joint enterprise (Gee, 2005). Data showed that learning is achieved through engagement in all facets of the learning space; including the formal learning management system created by the instructor and all ancillary spaces generated by students. A focus on participants and the creation of community within the space is essential and realized through collaboration, shared interest, interaction, and

support. Future research involving both undergraduate and master higher education students; as well as students completing non-cohort online programs could elicit additional knowledge of the distance environment. Also, research on the course shells would garner additional information regarding the design of the course and how the learning management system is being utilized in the course. With increased awareness of the online learning space, educators can better understand how to create virtual classrooms that are most beneficial to online learners and advance the distance experience for this unique population.

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## CHAPTER I

### INTRODUCTION

*“A dream is just a dream. A goal is a dream with a plan and a deadline.”*  
Unknown

The two years I spent online working on my Master of Education in Education and Human Resource Studies at Colorado State University were the most rewarding and life changing of my existence. I returned to formal education, needing to challenge myself academically. I was successful in this quest, but felt as though I had just scratched the surface of all that I desired to learn about educating. More importantly, I was finally on the path toward what I wanted to do with my life. I wanted to work in academia and have the opportunity to assist in enhancing someone else's life the way continuing my education has enhanced mine.

When the time came to begin researching graduate programs, it became apparent that in the years since finishing my baccalaureate degree, education had changed significantly. Online masters programs were rampant, but I needed a program that met in a physical classroom and, hopefully, one that required as little technology knowledge as possible. When I was an undergraduate student, I used a word processor, and computer labs were minimal with limited access. The entire application process was electronic, researching schools and programs was all done online, and testing was completed on a

computer. I began to doubt my returning to school. Could I be a good student in this technology-focused environment?

I chose to complete the Master of Education in Education and Human Resource Studies with a specialization in Adult Education and Training at Colorado State University. Then, two weeks before the start of the semester, circumstances changed, and a face-to-face program was no longer an option for me that semester. It turned out that my new program was also offered at a distance, with identical requirements, classes, and professors, but all online. The idea of taking classes online was terrifying, but it meant I could still start school. And, my advisor assured me that I could transfer back to the on-campus program for the spring semester.

This transition to online learning was definitely difficult for me, but I quickly came to appreciate the distance environment and to value the online classroom and all it could offer. Not only did class occur in our designated space on the learning management system, but we also ventured out onto the web and utilized other available resources. I fell into distance education by accident, only to realize it fit my style of learning quite well. When the opportunity arose to transfer to the on-campus program, I realized I preferred the online format and chose to stay in the distance program.

After completing my Master of Education, I returned to a traditional on-campus program for my doctoral program. I felt competent in the skills I had acquired during my master's program, so chose to challenge myself further by selecting a Ph.D. program in Educational Technology. However, I continued to have an interest in distance education and sought to better understand the online environment and ameliorate my knowledge of this phenomenon. For the last couple of years, I have had the opportunity to teach face-

to-face and online undergraduate classes and continue to question how these environments differ and how to best teach and support my students who are experiencing their first online class. During this experience in higher education, I have crossed paths with numerous students and teachers who disliked and avoided online education. Although I could once relate to this aversion, I now welcomed the opportunity to educate others in the distance environment. My personal experience is what initiated my curiosity in distance learning and the desire to study it further, and ultimately, it has led me to this research.

This study focused on the virtual classroom in a graduate higher education program. The research explored the learning space, who the stake holders were, and how the space was utilized. Finally, affinity spaces were examined to establish whether affinity spaces could be applied in higher education. Affinity spaces are physical or virtual places where individuals with a shared interest gather to facilitate learning, gain collective intelligence, and produce artifacts related to a joint enterprise (Gee, 2005). An embedded mixed-methods design with a descriptive theoretical approach to the research utilized all available means and determined the alignment of distance education and affinity spaces. A convenience sample of faculty in the Educational Studies doctoral program and current and past students of the three cohorts from this program were approached to participate in the research. The first chapter of *A Deconstruction of the Distance Learning Milieu: Affinity Spaces in Higher Education* contains: the background on the problem, a statement of the problem, an overarching research question and sub questions, and the rationale and significance of the research.

## **Background of the Problem**

The advances in technology have created a new kind of classroom. Education delivered via a computer, computer-based training (CBT), has been in existence for more than 40 years (Clark & Mayer, 2011), but its explosion in academia is more recent. Distance education has proven itself to be a viable alternative to traditional face-to-face education, attracting students who otherwise may not have the opportunity to participate in higher education as demonstrated by increasing enrollments.

According to the U.S. Department of Education (2014), in the fall of 2012, 11% of undergraduate students in Title IV institutions were enrolled exclusively in distance education courses. An additional 14.2% were enrolled in at least some, but not all, distance education courses. For graduate students enrolled in Title IV institutions, this number increases to 22% in exclusively online courses, with an additional 7.8% participating in some distance education courses. This accounts for almost one-third of graduate students.

Participation in distance education is growing and with it, comes questions regarding its quality, who participates in distance education, and how best to teach these students. Online and face-to-face instruction are two completely different entities. So, how do we adapt to this new format and ensure its success? Karatas and Simsek (2009) explained it well by comparing traditional and distance education to geometric shapes, stating that just because a triangle and rectangle are different shapes does not mean the area of the two can't still be equivalent. Although different, the learning outcomes of both formats have the potential for being similar.

A successful learner, facilitator, or technique in one mode may not translate to the other. Distance education may be a successful format for a learner only when they are a



disciplined student able to follow a schedule independently. And, just because someone may be an excellent classroom instructor doesn't mean they will prevail in the distance format. The techniques utilized to successfully instruct in a physical classroom do not necessarily translate to distance education (Chaney, Chaney, & Eddy, 2010). It's possible that although face-to-face and online instruction may be equivalent, they are not equal, and they need to be treated individually (Karatas & Simsec, 2009).

### **Statement of the Problem**

Distance education is not only here to stay, it is here and thriving. Enrollment increases each year, and over 90% of institutions of higher learning offer online courses (Capra, 2011). Online learning is a great alternative for students who may not be able to attend face-to-face classes. This alternate form of instruction requires students to participate in their education, but it is no longer confined to a traditional brick-and-mortar classroom.

Providing extended access to higher education is progressive, but with that comes a responsibility to deliver a quality experience. Distance learning remains a controversial topic within higher education. And, perceptions of online education continue to evoke a more-negative connotation. Some experts dismiss the idea that online and face-to-face instruction can even be compared because they are two completely different entities. Faculty is the most significant cost in online education (Smith & Mitry, 2008). So, many schools minimize this expense by introducing increased class sizes online or hiring adjunct or lesser-qualified faculty in order to make online education highly profitable (Smith & Mitry, 2008). Universities intent on overcoming this stigma and preserving value and legitimacy promote their online programs as being equal: "We offer

undergraduate and graduate degree programs that are regionally accredited and taught by the same faculty who teach on campus” (ASU Online, “Same Faculty and Degree,” n.d., para. 1); “Courses are developed and taught by the same acclaimed faculty who teach on campus” (CSU Online, n.d., “Our Division,” para. 2); and “CSU’s online students receive the same education, learn from the same faculty, and earn the same regionally accredited degree as students on campus” (CSU Online, n.d., “Our Division,” para. 2).

But, in spite of the growth of online education and the attempts to make it analogous with traditional face-to-face education, withdrawal from online courses has surpassed traditional face-to-face classes by 20% (Capra, 2011). One possible reason for this might be due to dissatisfaction with online education (Sembiring, 2014). With the disparity in literature comparing distance and traditional education, maybe the focus should be simply on successfully designing and delivering distance education.

With the surges in enrollment of distance education learners, the research comparing traditional face-to-face instruction with distance delivery amplified. And, creating an effective educational environment conducive to student learning in the traditional delivery format has often been studied. However, research focused on the distance environment has been lacking in higher education. Literature pertaining to the online learning spaces is prevalent outside of education, but has failed to extend to higher education.

By examining the higher education learning environment using multiple research methods and involving both faculty and students, we can better understand how to create virtual classrooms that are most beneficial to online learners. With knowledge and

awareness, teachers and administrators can advance the distance experience and improve learning for this unique population.

### **Research Questions**

- Q1 What comprises the learning space in distance higher education?
  - Q1a What characteristics of affinity spaces, as defined by Gee, are exhibited in distance higher education learning spaces?
  - Q1b How do graduate distance higher education students define the learning space?
  - Q1c Who contributes to the learning space in a distance higher education program?
  - Q1d How do graduate higher education learners utilize virtual spaces in distance education?

### **Rationale and Significance**

Currently, just over one-quarter of all higher education students participate in distance courses, requiring participation in an online classroom. The National Center for Education Statistics, a sector of the U.S. Department of Education, found that in 2012, approximately 5.5 million students were enrolled in at least one online course. This is an increase from 2008 when approximately 4.3 million higher education students were enrolled in an online course (U.S. Department of Education, National Center for Education Statistics, 2011).

As distance learning gains in popularity, the need to better understand the online learning environment escalates. The distance format has created the existence of a new kind of classroom. Professional growth for educators concerning how best to reach these students, create successful learning environments, and how students utilize the learning space can enhance the distance experience for all involved.

James Paul Gee founded affinity spaces, “places where people can go to share resources and values and flexibly form and re-form in different groups” (2013, p. 174). Although Gee’s research of affinity spaces stems from gaming, he stated that these social configurations have large implications for the future of schools and schooling (Gee, 2005). In *The Anti-Education Era: Creating Smarter Students through Digital Learning* (Gee, 2013), he acknowledged that “schools and colleges could have been and should be in the future a network of well-designed interacting affinity spaces devoted to synchronized intelligence” (pp. 177-178). Gee is not alone in his notion that affinity spaces have implications for education (2005). Beemt, Akkerman, and Simons argue that:

Social and cultural spaces are increasingly defined around affinities . . . affinity spaces should not be set aside as something students deal with outside school hours. Instead . . . an exploration of how education can connect to the affinity spaces that students engage in is necessary. (2011, p. 63)

However, in spite of the plethora of literature on affinity spaces in relation to gaming and digital literacy and Gee’s assertions, research pertaining to the association of affinity spaces and education is extremely limited. Online gaming has a significant role in Gee’s framework of affinity spaces, and many studies have been completed in this online context, but a gap in the literature remains in regards to these spaces in distance learning. No research has been conducted relating affinity spaces with distance higher education.

Although distance learning has long been an option for students, the progression of technology has caused dramatic expansion and revolutionized its distribution. Regardless of delivery method, “providing quality learning experiences is the goal and responsibility of all educational programs” (Somenarain, Akkaraju, & Gharbaran, 2010,

p. 353). This mixed-methods research focused on examining these distance higher education learning spaces and determining if Gee was accurate in his notion that affinity spaces do, in fact, have implications in this environment. For the purposes of this study, learning spaces are defined as places individuals with a shared affinity assemble, face-to-face, online, or at a distance to: (a) share resources and values, (b) generate collective intelligence, and (c) create collaborative artifacts.

## CHAPTER II

### REVIEW OF THE RELATED LITERATURE

#### Adult Learners

Less than 10% of adults in the United States have a master's degree, and less than 1% obtain their doctoral degree (Bierma, 2010). Although research shows that participation by adults in formal education is increasing significantly (Ginsberg & Wlodkowski, 2010). In the *Handbook of Adult and Continuing Education*, Bierma discussed the low participation figures for graduate school, but Ginsberg and Wlodkowski shared that "adult participation in formal learning has reached unprecedented levels within the last decade, due to . . . awareness among middle-income adults that education is the vehicle to career enhancement" (2010, p. 25). Although career-related advancement seems to be one of the main reasons people continue their education, most adult students are paying for their own tuition. Only "13% of learning expenditures are employer-paid" (Sandmann, 2010, p. 227). According to Ginsberg and Wlodkowski, the cost of online courses is usually the same or higher than traditional classroom courses. For some adults, I believe the convenience of online classes is worth additional costs. Due to the convenience and flexibility of distance education, "adults are the largest age group to use online learning" (Ginsberg & Wlodkowski, 2010, p. 29). "Adult students leave college more often because they lack both time and money for their studies" (Sandmann, 2010, p. 227). Flannery and Apps researched graduate students

returning to school and found that these participants “are not only students, nor even primarily students” (1987, p. 18) and for this reason, balancing family, job, and school was one of the most serious barriers. Regardless of format, attending graduate school needs to be looked at like a job and given an equivalent time commitment.

### **Distance Education**

Although distance learning has long been an option for students, the progression of technology has caused dramatic expansion and revolutionized its distribution. Regardless of delivery method, “providing quality learning experiences is the goal and responsibility of all educational programs” (Somenarain et al., 2010, p. 353). During recent economic downturns, traditional face-to-face educational programs have declined and been supported to a lesser extent than distance education (Shacher & Neumann, 2010). The quality of education received in the traditional format has not improved to the same degree as online programs, and this indicates that in the next decade, the gap in academic performance between the two will only widen (Shacher & Neumann, 2010).

Distance education remains a controversial topic within higher education. And, some experts dismiss the idea that online and face-to-face instruction can even be compared because they are two completely different entities. Karatas and Simsek (2009) explained it well by comparing traditional and distance education to geometric shapes; just because a triangle and rectangle are different shapes does not mean the area of the two can't still be equivalent. Although different, the learning outcomes of both formats have the potential for being similar. Also, a successful learner or facilitator in one mode may not translate to the other. Some teachers may be excellent classroom instructors, but that doesn't mean they will succeed in the distance format or even that they are interested

in being a successful distance educator. And, for learners, distance education may only be a successful format when they are a disciplined and independent learner. Distance education is not for everyone. The information presented on distance education is inconclusive and sometimes contradictory. Possibly this relates to the question of whether face-to-face and distance learning can even be evaluated side by side, or if they simply need to be measured individually.

### **Satisfaction of Traditional and Distance Learners**

Overall satisfaction of distance students was positive and, in most cases, equal to that of face-to-face students. A few exceptions were found in the literature that favored one format over the other, but for the most part, they were deemed equivalent in terms of fulfillment. Current literature shows that the overall satisfaction of a course can be linked to a number of attributes. And, there appears to be a consensus in the literature on how to improve satisfaction, particularly for distance learners.

**Overall satisfaction.** One way to maintain the significant enrollment numbers in online classes is to ensure their learners are highly satisfied. Hannay and Newvine (2006) found that their criminal justice students who had participated in both online and face-to-face classes achieved greater satisfaction in the distance delivery format. Online students tend to have a very positive feeling toward their distance experiences.

**Satisfaction attributes.** The interaction and communication within a course is a significant indicator of overall satisfaction. This includes both peer-to-peer and learner/professor. Participation in discussions is also part of the communication element linked to approval. In terms of communication, an instructor's response time plays a part in the learners' satisfaction. Clearly communicated course and assignment expectations



are also an indicator of overall satisfaction. In addition, required group work has the potential to determine a learner's satisfaction for a course. Based on research reviewed, an additional element that affected positive responses of online students was their familiarity with the use of technology. Often, this does not play a role in a traditional learner's affirmative endorsement of a class, as a lack of technical experience does not hinder their participation or interaction to the same extent.

Interaction between both classmates and instructors is a significant factor related to satisfaction, especially at the graduate level. It has been determined that there is a strong relationship between overall satisfaction and satisfaction with the instructor, so, ultimately, the role of the distance instructor in a positive course experience cannot be overlooked (Capra, 2011). Studies found that discussions have a positive effect on learner satisfaction, and, based on satisfaction surveys from traditional and online health and wellness students, the distance learners' results indicated that they were encouraged to participate more in class discussions (Block, Udermann, Felix, Reineke, & Murray, 2008). To garner satisfaction in an online class, timely communication improves satisfaction with the facilitator which, in turn, improves overall course satisfaction. Also, if there are concerns over directions for an assignment or course expectations, satisfaction was positive if these problems were addressed (Roach & Lemasters, 2006).

**Improvements to satisfaction.** Course completion rates may be linked by some to dissatisfaction with the course, so this may indicate an exception to an equally satisfying learning experience for traditional and distance participants. Withdrawal from online courses has surpassed traditional face-to-face classes by 20% (Capra, 2011), and one possible reason for this might be due to dissatisfaction. Another possible rationale

for this higher withdrawal rate may be due to a lack of time as there is potential for distance learners to have fuller schedules. Regardless of reasoning, there are ways to improve satisfaction.

Chernish, Defranco, Dooley, and Lindner (2005) found that instructors need to encourage community, especially in the distance environment. Encouraging participation and a “safe” learning environment ultimately creates a positive learning experience. This includes actively moderating student interactions in order to ensure a respectful environment (Roach & Lemasters, 2006). Also, it cannot be assumed that facilitation strategies that work well in a face-to-face classroom are necessarily conducive to the distance environment. Online courses must include a variety of resources in order to compensate for the lack of traditional instruction. Some faculty members remain conservative in their opinions of the quality of online education (Simonson, 2003). Because of the significant link between learner satisfaction and instructor satisfaction, this perception may hinder a learner’s experience if not veiled. Satisfaction can also be improved with greater understanding of technology in that “most learners reported the comfort level low as they experienced difficulties with technology” (Chernish et al., 2005, p. 94). As technology continues to improve and become more user friendly, satisfaction in this area should also increase.

### **Perception of Learning**

The literature consistently reports that distance learners perceive that they learn more than their traditional counterparts. Research indicated that when technology is utilized, students self-reported gains tend to improve (Strayhorn, 2006). As technology has advanced, learners’ opinions of their distance education has also increased. Chiero

and Beare (2010) evaluated distance and traditional teacher education programs by surveying participants one year out of the program and their current supervisors on the perceived effectiveness of the preparation they received. It is interesting to note that online participants rated their overall learning 15% higher than campus-based learners, but supervisors rating both participants based on their current performance bestowed distance participants with only a 4% higher margin (Chiero & Beare, 2010). This perception of enhanced learning by students may be attributed to a number of closely related factors including the perceived difficulty of an online course and the active participation of distance learners.

**Perceived difficulty.** Participants in distance education do not consider online classes to be an easy alternative to face-to-face education. There is a constant notion that an increase in learning is achieved in online classes due to the difficulty of these courses. This boost in difficulty is often linked by students to an increase in workload and required effort to succeed in distance education. It is important to keep in mind these are the perceptions of learners and do not necessarily reflect a difference in the requirements or expectations of class facilitators.

In online classes, students more often read the required material compared to traditional face-to-face students (Hannay & Newvine, 2006). This reflects additional effort put forth by distance learners, which may be perceived as a more significant workload. These face-to-face students rely on the instructor to give them the required information when partaking in the traditional setting (Hannay & Newvine, 2006). Because learners perceive distance classes to be more difficult, they, in turn, put forth more effort in order to succeed. This additional effort correlates to greater perceptions of

learning. Distance students felt they gained new skills to a higher degree (10%) than the traditional students in the same course due to this effort (Somenarain et al., 2010).

**Active participation.** Online classes require participants to be actively involved in their learning. To be a contributing class member requires an increased time commitment. This participation has a positive impact on the students' perception of their learning. Research showed that online students typically spend more time on their course than do traditional face-to-face students and rely more heavily on online resources (Hannay & Newvine, 2006; Gould, Sadera, & McNary, 2015). In online classes, there is the added time commitment essential to contributing to each discussion. Roach and Lemasters (2006) researched graduate students who reported that distance classes require them to be contributing class members as they cannot "hide" among their peers. Because limited class time is no longer a concern, the expectation is that every student will be actively involved.

### **Student Performance**

Based on the available research, there is no reason to doubt the academic performance of distance learners. Student performance as determined by assignment grades and final course grades indicated that distance education is comparable to face-to-face instruction and, in some cases, even outperforms it (Shachar & Newmann, 2010). A few studies further scrutinized performance and examined the permanency of the two delivery modes.

### **Social Spaces**

Both communities of practice and affinity spaces are created around a common enterprise. Participants may be diverse, but have some mutual interest in common. Also,

both Wenger's (Wenger, 1998) communities of practice and Gee's (Gee, 2005) affinity spaces can be real, virtual, or a hybrid. However, the fundamental components of the two vary slightly, and the emphases of the two are distinctively unique.

### **Communities of Practice**

Communities of practice focus on the social aspect of learning. In Wenger's (1998) book *Communities of Practice: Learning, Meaning, and Identity*, he acknowledged that these "communities" have been around for centuries and that he was simply implementing an innovative approach to theories of learning. He dictated that learning is, in fact, a social phenomenon, a "process of being active participants in the *practices* of social communities and constructing *identities* in relation to these communities" (Wenger, 1998, p. 4). He ascertained four elements of learning as a social process: meaning, practice, community, and identity. The interplay of these components is a distinct function of our lives, as individuals participate in numerous communities of practice. In order to understand communities of practice, we must first explore communities.

The individuals that make up a community of practice are definitely at the core of this learning theory. According to Wenger and Snyder (2000), communities of practice are: (a) "groups of people informally bound together by shared expertise and passion" (p. 139); (b) "made up of 10s or even 100s of people, but typically it has a core of participants whose passion for the topic energizes the community and who provide intellectual and social leadership" (p. 141); and (c) "informal—they organize themselves . . . and establish their own leadership. And membership in a community of practice is

self-selected” (p. 142). The “space” is not an imperative element in communities of practice, rather who makes up the population is significant.

Not all communities are communities of practice. For example, simply because individuals live in a neighborhood “community” or work with a team of people does not suffice to be a community of practice. Geographic location, interaction, and relations alone may be considered a community, but not a community of practice (Wenger, 1998). To incorporate “practice” into the community entails the inclusion of: mutual engagement, joint enterprise, and shared repertoire (Wenger, 1998).

**Mutual engagement.** Community of practice membership requires that individuals interact around a shared enterprise (Wenger, 1998). Together, these individuals engage and negotiate meaning (Wenger, 1998). The community must involve individuals and create space for growth and development (Wenger, McDermott, & Snyder, 2002). For individuals to be engaged, there must be aspects of both diversity and homogeneity (Wenger, 1998).

**Joint enterprise.** The enterprise of a community of practice is collectively defined through a negotiation process realized by its members, ultimately creating accountability for all involved (Wenger, 1998). This does not mean that all participants in the community have the same beliefs or that they all agree on everything, simply that the objective of the community was established jointly. This agreed-upon enterprise might be in response to outside circumstances, but it is still determined by the community members (Wenger, 1998).

**Shared repertoire.** Each community of practice has established collective resources grounded in its history. This may include “routines, words, tools, ways of

doing things, stories, gestures, symbols, genres, actions, or concepts that the community has produced or adopted in the course of its existence, and which have become a part of its practice” (Wenger, 1998, p. 83). This shared repertoire has potential for new interpretations, creating a history that is both germane and meaningful (Wenger, 1998).

### **Affinity Spaces**

In *Beyond Communities of Practice: Language, Power and Social Context*, Gee (2005) addressed affinity spaces and communities of practice and presented affinity spaces as an alternative to communities of practice. Gee indicated that affinity spaces “focus on the idea of a *space* in which people interact, rather than on *membership* in a community” (2013, p. 214). With membership, communities of practice are more focused on the individuals that make up a community of practice, rather than the space or place being “occupied.” Gee (2013) wanted the emphasis to be on the space (physical, virtual, or geographical) where individuals relate. This space is comprised of portals (access to the space) and generators (content). The focus, therefore, should be on the space and how it is utilized by different individuals (Henderson & Hirst, 2007). “These physical, virtual or blended spaces are often spread across many sites, such as face-to-face meetings, message boards, blogs and web pages” (Lammers, Curwood, & Magnifico, 2012).

Gee introduced us to affinity spaces, “places where people can go to share resources and values and flexibly form and re-form in different groups” (2013, p. 174). These spaces can be face-to-face, online, at a distance, or any combination of these. In affinity spaces, individuals gather around a shared passion. Participants in the space have the opportunity to become as involved as they want and to become an expert to the

degree they desire. Affinity spaces provide a place where individuals congregate to be creative and generate a collective intelligence, created through contributions by all individuals, that is greater than the sum of its parts (Gee, 2013).

**Characteristics.** Gee (2013) presented 18 features of affinity spaces:

1. People are in them by choice, based on a shared enterprise.
2. Participants in the affinity space are of diverse ages and backgrounds.
3. Individuals range from amateurs to experts in the common endeavor of the space.
4. Interest in the subject matter of the affinity space can vary greatly.
5. High standards for excellence in the enterprise are set by individuals with mastery of the content.
6. Affinity spaces are dedicated to producing and knowledge.
7. All members have the opportunity to contribute to the degree they are interested, and each contribution has potential for significance in the affinity space.
8. All contributions to the space are welcome, and diversity is valued.
9. Status within the affinity space and leadership are amenable and fluid.
10. Status is based on an individual's engagement and accomplishments within the space, not what has been attained outside of the space.
11. Resources within the space are plentiful and are amended by the participants in the affinity space.
12. Participants in affinity spaces may have a specific focus, but must also collaborate with others in the space.



13. Each affinity space has a marked culture, but acknowledges outside knowledge to ensure growth and diversity.
14. All individuals in the affinity space are expected to facilitate learning for themselves and other participants.
15. Participants' motivations and tenure in the space varies.
16. Because affinity spaces are created around an interest, there is no delineation between work and play within the space.
17. Socialization is secondary only to the venture of the affinity space and is achieved through a variety of mediums.
18. Affinity spaces are based on empirical evidence, not assertions or philosophies.

**Online higher education.** Gee (2005) believed that although there is potential for transforming education to more closely parallel affinity spaces, current classrooms rarely align with many of the features he presented. However, the elements specific to online and higher education can be effectively associated with an affinity space. The typical class segregates students by age; race, class, gender, and disability are clearly apparent (Gee, 2005). In addition, the teacher is traditionally the “giver of knowledge” and noticeably the “leader.” However, many of these disparities are diminished in the online adult higher education classroom and its focus on subject matter.

**Learners.** Unlike a K-12 classroom, higher education learners vary greatly. Adults come to educational environments with diverse and disproportionate prior experience (Long, 2004). This diversity in age, background, and level of expertise is consistent with participants' characteristics in Gee's (2013) affinity spaces. Students in

an online higher education course are brought together over a common interest, but their reasons for returning to school often vary greatly. Male students often attend higher education for employment-related reasons, whereas personal improvement is frequently a motive for women (Long, 2004). Entry in an affinity space is also for different reasons, it is simply the common endeavor that brings the individuals together (Gee, 2013).

***Facilitators.*** In traditional teacher-centered learning, the teacher is entirely in control, dictating what students will learn, how the students will learn, and if the students have learned (Weimer, 2013). This control and delineation between students and teachers is contradictory to affinity spaces.

In an affinity space, leadership and status are flexible. People sometimes lead and mentor; sometimes they follow and are mentored. There are no fixed bosses and teachers, though people acknowledge different paths to mastery and know where people are on them. (Gee, 2013, p. 176)

However, in adult education, the professor is encouraged to be a facilitator (Merriam, Caffarella, & Baumgartner, 2007). The idea of facilitating learning more closely aligns with Gee's affinity spaces. An educator of adults has "many roles within the teaching and learning interaction including role model, mentor, counselor, content resource person, learning guide, instructional developer, and institutional representative" (Galbraith, 2004, p. 5). This relationship is more give and take and, therefore, more representative of an affinity space. In formal online adult education, the students are often encouraged to "take charge" and assist in the instruction. Learning in distance education is no longer a passive activity.

***Classroom.*** Gee (2005) expressed concern that race, class, gender, and disability are often at the forefront in a traditional education classroom. However, in distance education, social equity is more easily achieved, as age, race, gender, social economic

status, and disability are no longer a focus of the environment (Rovai, Ponton, & Baker, 2008). The distance classroom setting focuses on the education space, similar to affinity spaces that are often positioned in multiple locations (Lammers et al., 2012). Online classrooms are often launched on a learning management system containing discussion boards, chat rooms, group hangouts, and assignment and content resources. However, additional portals (Gee, 2005) are often created for collaboration between participants. Learners often connect on social media, google documents, wikis, etc., and the list continues to grow as technology advances. Similar to education classroom spaces that expand to external resources, affinity spaces link to other related spaces so that knowledge from the outside can transform the space (Gee, 2013). Gee's focus on space rather than membership, as seen in communities of practice, created the potential for a formal learning space to be considered an affinity space (Bommarito, 2014).

***Content.*** The affinity space model with a focus on the learning space and passion for a topic exemplify Gee's interest in education (St. Clair & Phipps, 2008). Many elements in affinity spaces when merged with education also support the contemporary notion of a subject-centered classroom (Palmer, 1998). In a subject-centered classroom, the responsibility is to the content, with a focus on the subject being learned, rather than a conventional student- or teacher-centered classroom. Both teacher and students have access to the subject (Palmer, 2007). Both student and teacher become "accountable to something beyond ourselves" (Palmer, 2007, p. 119). In a subject-centered classroom, the passion, by all involved, is for the subject. This passion is why individuals partake in affinity spaces (Gee, 2013). "In a subject-centered classroom, the teacher's central task is to give the great thing an independent voice" (Palmer, 2007, p. 120).

No longer is the teacher the authority as portrayed in a teacher-centered classroom. We all learn differently and look at things differently. With a classroom focused on the subject, “teachers and students are more likely to come into a genuine learning community, a community that does not collapse into the egos of students or teacher, but knows itself accountable to the subject at its core” (Palmer, 2007, p. 120). This flexible nature of leadership is also a necessary element in affinity spaces. When students and facilitators alike are excited about a particular subject and motivated to learn about it, as in a subject-centered classroom, teaching is communal (Palmer, 2007).

One of the paradoxical tensions of a subject-centered learning space is rising up both the group and individual voice in a classroom (Palmer, 2007). This creation of a learning environment that exalts both the individual and the group as a whole, with a focus on the shared interest, is a characteristic of affinity spaces. Participants may have a specialty, but are required to also collaborate with others regarding the shared interest (Gee, 2013). Participation by everyone is encouraged, and to do this, a learning environment must be established that encourages peers to work together and to learn from one another. This cooperation for content advancement is an aspect found in both affinity spaces and subject-centered classrooms. The goal of teamwork in affinity spaces is to ensure knowing and doing (Gee, 2013).

### **Affinity Space Research**

Although affinity spaces can be centered on any interest, much of Gee’s work regarding affinity spaces focused on gaming and, indirectly, digital literacies. However, in *The Anti-Education Era: Creating Smarter Students through Digital Learning* (Gee, 2013), he acknowledged that “schools and colleges could have been and should be in the

future a network of well-designed interacting affinity spaces devoted to synchronized intelligence” (pp. 177-178).

### **Gaming and Digital Literacy**

Participants in online video games have a shared interest in the game and create a culture surrounding participation in the game. This community of gamers has been extensively researched. Research demonstrates these cultural and social spaces are designed around the affinity and are made up of diverse individuals and backgrounds with a commonality in the game (Beemt et al., 2011). The space provides individuals the opportunity to engage and communicate with others who share this interest (Brass & Mecoli, 2011). This arrangement is an opportunity to facilitate instruction and learn from others in the community. In addition to the shared pastime, the players jointly produce artifacts through the affinity space (Duncan, 2010). Curwood (2013) detailed how a Hunger Games affinity space, comprised of a plethora of websites, games, and social networks, to name a few, encourages young adults in reading and writing.

### **Science Camp**

In researching an Advanced Astronomy Camp for high school students focusing on conducting research projects with a community of professional scientists, Fields (2009) discovered that the camp encompassed the characteristics Gee described as an affinity space. The camp was an intensive, but informal opportunity for students to engage in research with a community of professional scientists who shared a common interest. Fields described apprenticeship camps that succeed in including participants in the community of practice, but remove ownership of their research. The affinity space design, combining both a connection to the science community and critical involvement

in the research projects, contributed to the camp's success and students' positive assessment of the camp (Fields, 2009).

Interviews with campers uncovered four themes, three of which related to affinity spaces: peer relationships, personal autonomy, and relationships with staff members (Fields, 2009). The peer relationships highlighted the sense of community around a shared interest, the basis of affinity spaces. The camaraderie of the campers created an atmosphere conducive to peer-to-peer learning. The personal autonomy experienced by the campers generated a responsibility and empowerment in regards to their research project.

Ownership over the design and implementation of the research projects not only led to positive feelings of agency, but also enabled youth to contribute to the formal content or organization of the camp (an attribute of affinity spaces), teach other youth through their specialized knowledge of an individual project, and take responsibility for explaining the results of their projects. (Fields, 2009, p. 162)

Throughout interviews, staff were depicted as resources, allowing the campers to collaborate with the occasion to be leaders. The design of the camp “led to the association and collaboration of people with various levels of expertise in astronomy (and a range of degrees in between since campers and staff had varying years and types of experiences) in the same space” (Fields, 2009, p. 162).

### **Summary**

Gee (2005) stated that affinity spaces do not have to be all or nothing. If a space incorporates numerous, but not all, of the features of an affinity space, it is essentially an affinity space. With a focus on the learning space, affinity spaces align with distance education and its emphasis on the virtual learning space that's available anytime, anywhere. Gee (2013) noted this association, and others have acknowledged the

connection between affinity spaces and education (Beemt et al., 2011). But, beyond the literature related to affinity spaces and gaming or digital literacy, the research is extremely minimal. Studying the distance higher education classroom in relation to affinity spaces generated new knowledge and revealed further necessary research arenas.

## **CHAPTER III**

### **METHODOLOGY**

#### **Introduction**

As distance education flourishes, the need to better meet the requirements of these learners becomes more essential. With the expansion of students and universities participating in online learning, distance education now comprises a significant portion of the education system (Capra, 2011). This is a unique format comprised of diverse learners, so continuing to employ traditional educational methods is not the most logical technique. The purpose of this research was to examine the distance higher education classroom to better assist the diverse learners participating in distance higher education. This study expanded the current literature related to affinity spaces and explained affinity spaces in relation to distance higher education. The study addressed the following research questions:

- Q1 What comprises the learning space in distance higher education?
  - Q1a What characteristics of affinity spaces, as defined by Gee, are exhibited in distance higher education learning spaces?
  - Q1b How do graduate distance higher education students define the learning space?
  - Q1c Who contributes to the learning space in a distance higher education program?
  - Q1d How do graduate higher education learners utilize virtual spaces in distance education?



This chapter articulates the methodology utilized for this study. The rationale for completing a mixed method design is established. And, the approach, epistemology, theoretical perspective, and framework are highlighted. Uses of a multiple case study, survey, and visual methodologies are explained. Finally, details of the study, data collection, data analysis, and limitations of the research are expounded upon.

### **Mixed Method Design**

With an interest in fully exploring the distance education classroom, it was evident that a mixed method approach combining both quantitative and qualitative data would most accurately support my inquiry. Mixed methods are still an evolving research design without the precise standards found in quantitative research (Creswell, 2012). The terms “multiple methods, mixed methods, multiple or mixed approaches, integrated methods, multiple models, mixed models, ‘combined’ qualitative and quantitative methods, and ‘qualitative plus quantitative’ approaches” are all found in the literature (Smith, 2009, p. 458). In addition, the makeup of each of these designs varies. They may simply include more than one design, even if both are quantitative or qualitative, or they may require at least one qualitative and one quantitative method. There is even a difference of opinion on what constitutes quantitative or qualitative (Smith, 2009). For the remainder of this research, I will utilize the term mixed methods and will refer to Smith’s definition referring to “studies or projects that employ at least one quantitative and one qualitative method to produce knowledge claims” (2009, pp. 458-459).

The purpose of the mixed method design used for this research was complementary. The use of both quantitative and qualitative data with a complementary purpose was to research both similar or overlapping aspects and different aspects of the

study (Greene, Caracelli, & Graham, 1989). Employing both types of data seeks “elaboration, enhancement, illustration, [and] clarification of the results from one method with the results from the other method” (Greene et al., 1989, p. 259).

Both quantitative and qualitative data collected explored the distance higher education classroom. However, the quantitative data specifically focused on the elements attributed to affinity spaces. The qualitative data consisted of open-ended questions and the creation of visual images. The qualitative aspects of the design allowed for the research to describe the participants’ experiences of the higher education classroom.

### **Embedded Mixed Methods Design**

The embedded mixed methods design collects both quantitative and qualitative data, either simultaneously or sequentially. In this design, one form of data is primary with the additional data completing a supplemental role. The second form of data is collected to support or augment the primary data (Creswell, 2012). In this mixed methods design, the quantitative and qualitative data are analyzed separately. “The strength of this design is that it combines the advantages of both quantitative and qualitative data” (Creswell, 2014, p. 545).

### **Descriptive Theoretical Approach**

A descriptive theoretical approach was employed in the research. A descriptive approach provides a detailed account of what is being explored (Creswell, 2012). The goal is to accurately portray the world (Remler & Van Ryzin, 2011). The data collected were utilized to depict the distance learning space. “We use qualitative research to develop theories when partial or inadequate theories exist for certain populations, and samples or existing theories do not adequately capture the complexity of the problem we

are examining” (Creswell, 2013, p. 88). A theoretical approach “starts with a theory, ends with a theory, or modifies an existing theory based on views of the participants” (Creswell, 2012, p. 274). The research applied a theoretically focused case study approach equating affinity spaces to distance higher education. The portrayal of the virtual classroom based on the research established distance learning spaces as affinity spaces requiring adaptations to established affinity spaces.

### **Epistemology**

This research aligned with the constructionist epistemology, that meaning is created as individuals engage in the world around them. Crotty (1998) described constructionism as “the view that all knowledge, and therefore all meaningful reality as such, is contingent upon human practices, being constructed in and out of interaction between human beings and their world, and developed and transmitted within an essentially social context” (Crotty, 1998, p. 42). The distance higher education virtual classrooms studied in this research were constructed by the facilitators and participants as they interacted with one another and participated in learning. And, although each student was partaking in the same learning space, their individual experiences and interpretations varied.

### **Theoretical Perspective**

Theoretical perspectives provide a context for research (Crotty, 1998). How one views the world and makes sense of it, including all their assumptions of the world, form their theoretical perspective. These perspectives ultimately affect their research. How one views the world guides how one conducts research (Crotty, 1998). This research project was steered by an interpretivist philosophy. “Interpretivism is overwhelmingly

oriented towards an uncritical exploration of cultural meaning” (Crotty, 1998, p. 60). A focus on the experience of the individual and the specific case is apparent throughout the design. The intent was on the social reality. This study aligned with Merriam’s view of interpretive research in which “education is considered to be a process, and school is a lived experience” (Merriam, 1998, p. 4). The research sought to understand the participants’ experiences.

### **Theoretical Framework**

James Paul Gee’s (2013) affinity spaces learning theory guided the research. These affinity spaces are places for learning where individuals gather “to share resources and values and flexibly form and re-form in different groups” (2013, p. 174). Gee’s affinity spaces place an emphasis on the space where participants interact around a common enterprise (Gee, 2005). Affinity spaces provide a place where individuals congregate to be creative and generate a collective intelligence, based on the contributions of all individuals (Gee, 2013). Participants may be diverse, but have a mutual interest in common. Within the space, participants may be as involved as they want and have the opportunity to gain as much expertise on the subject as they desire.

Although Gee’s research of affinity spaces stems from gaming, he stated that these social configurations have large implications for the future of schools and schooling (Gee, 2005). Gee (2013) rationalizes that “schools and colleges could have been and should be in the future a network of well-designed interacting affinity spaces devoted to synchronized intelligence” (pp. 177-178).

The social phenomenon of learning is imperative to this research. And, Wenger’s (1998) communities of practice with an emphasis on the members within the learning

community are necessary when exploring the distance higher education learning space. These social learning theories in combination with adult learning theory provided a framework for the study of learning spaces within a distance higher education cohort.

Adult learners are a unique student population. Flannery's and Apps' (1987) study of adult learners indicated that these students are balancing a variety of roles, student, family member, and employee, to name a few. They are required to balance a number of differing responsibilities, making *student* not their primary appointment (Flannery & Apps, 1987). Yet, participation by adults in formal higher education continues to escalate due to the potential for career advancement (Ginsberg & Wlodkowski, 2010). This division of responsibility leads adults to distance education. Adults are the most prevalent population in online learning (Ginsberg & Wlodkowski, 2010). Researching affinity spaces in distance higher education in relation to adult learners guided this mixed methods study.

## **Methodology**

### **Multiple Case Study**

Although there is some dissent as to whether case study is a methodology or a strategy of inquiry, for the purposes of this research it was considered a methodology (Creswell, 2013; Merriam, 1998). Case study research is “anchored in real-life situations . . . and results in a rich and holistic account of a phenomenon” (Merriam, 1998, p. 41). The Educational Studies Cohorts are bounded by time and place, one of the requirements of a case study (Creswell, 2013). By applying case study research, each of the cohort's learning spaces can be thoroughly investigated within the program's distance education format.

### **Cross-Sectional Survey**

A cross-sectional survey allows for the collection of data at one point in time. One benefit of the cross-sectional survey design is that it permits the researcher to collect information in a short amount of time, making it a popular methodology in education research (Creswell, 2012). Due to the timeline of this research project, this approach delivered the maximum relevant information while adhering to the tight timeframe. One cross-sectional design allows for the comparison of multiple groups (Creswell, 2012). By using this strategy, the researcher had the ability to collect data from three cohorts in three different phases of the Ed.D. program. In addition, these student interpretations could also be contrasted with the faculty explanations.

### **Visual Methodologies**

Banks defined data as “the visual images and other things that are identified, created or reified by the processes of social research into objects that can be manipulated, tabulated, compared one against another, and so forth, regardless of their ontological status” (2007, p. 12). Visual materials in research primarily consist of photographs and minimally, videos or film, but any image—drawings, paintings, collages, graffiti, diagrams, cartoons, maps, etc.--have potential for use as research data (Harper, 2002; Wagner, 2006).

Creating visual images in research allows time for reflection and often insightful dialogue regarding the image. Often, the inclusion of visual images creates a new perspective or enlightened understanding of a situation (Harper, 2002). “Images evoke deeper elements of human consciousness . . . exchanges based on words alone utilize less of the brain’s capacity than do exchanges in which the brain is processing images as well

as words” (Harper, 2002, p. 13). Visual images can be used to stimulate memory or recover a precise fact (Collier, 1957). According to Harper (2002), the inclusion of visual methods in research can add validity and reliability to word-based research. Images are “unique sources of evidence” (Rose, 2007, p. 238). The information contained in a single image could take pages of writing to explain (Rose, 2007).

There are three categories of visual materials: pre-existing, materials created by the researcher, and collaborative visual materials (Banks, 2007). All of these visual materials may be incorporated into research and are comprised of any photograph, video, or any other static or moving visual image. All of these visual images can be utilized for documentation, collecting or analyzing information, or use in interviews or surveys (Pink, 2007). One strand of the visual methodological technique is a study of images in which the participants have a connection to the visual materials (Banks, 2007). In a study of images, the visuals utilized in the research are produced and/or consumed by the participants (Banks, 2007).

Collaborative visual materials constituted one element of this research. Photo self-elicitation or photo-feedback and photo-production subsisted as one aspect of the research. Photo-feedback or photo-self-elicitation research involves image producers analyzing their visual image and providing written comments regarding the image (Harper, 2002). Images hold different meanings for different individuals Toward a conceptual framework for mixed-method evaluation designs., and the elicitation method allows these connotations to be understood by the researcher. Eliciting information about images for a research study not only highlights the image and its meaning, but the justification for producing that image and in what way (Radley, 2010). According to

Radley (2010), photo-production incorporates what individuals choose to include or exclude in the picture, how the pictures are shown, and how the pictures are captured.

### **The Study**

Technology has made higher education accessible to a larger student population and altered traditional views of teaching, learning, and the educational classroom (Peluso, 2012). Distance learning is forcing educators to rethink how they deliver information and facilitate the learning process (Rossing, 2012). No longer are students restricted to learning within four walls of a classroom, as the entire educational process can transpire online (Hoppe, Joiner, Milrad, & Sharples, 2003).

If students are no longer limited to learning within the walls of a traditional classroom and they have the opportunity to learn at a distance, what does this new virtual classroom look like? Is it constrained to a learning management system utilized by their institution of higher learning and constructed by the instructor? Or, does the learning space have the potential to include all the technologies and resources that have potential to enhance the learning environment?

What do students and teachers consider as part of the learning space, how is it utilized, and who are the stake holders in this space? In the gaming arena, Gee (2013) referred to this environment as an affinity space. Can this framework be equated to the distance higher education learning space as Gee alleged?

My interest in distance higher education and facilitation in the online environment led me to this research project. The research was an opportunity to explore the distance learning space for faculty and current and former students in a distance graduate program.



This study could create an improved understanding of the virtual classroom and benefit the plethora of students, teachers, administrators, and institutions of distance education.

### **Participants**

Participants in the study included students and faculty of the Educational Studies Ed.D. program at a university in the Rocky Mountain Region. The Educational Studies Doctorate is “an innovative program designed to prepare educators for leadership roles in a dramatically changing landscape of education” (School of Teacher Education, n.d., “Ed.D. Educational Studies,” para. 1). The program is offered on campus, in a hybrid format, and online for working adults and full time graduate students.

The Educational Studies program is a four-year, 64-credit program, commencing in the summer of odd-numbered years and culminating in a dissertation (School of Teacher Education, n.d.). The dissertation is presented on campus in the final semester of the program. “The online program features our Innovation and Education Reform Emphasis, preparing informed, reflective and forward-thinking educational leaders who are prepared to implement and study educational change in today’s rapidly evolving educational systems” (School of Teacher Education, n.d., “A Mostly-Online Doctoral Program for Educators,” para. 1). The program studies:

- Relationships between research, policy and practice in education
  - How to conduct, analyze and apply research of education
  - Issues surrounding curriculum, evaluation and implementation
  - Critical evaluation skills and perspectives of education and society
  - Ways to contribute to the improvement of education systems.
- (School of Teacher Education, n.d., “You Will Study”, para. 1)

The program prepares graduates for educational leadership roles and positions in higher education (School of Teacher Education, n.d.).

Admission requirements include a minimum GRE, taken within the applicant's last five years, with scores of: 297 combined, 140 quantitative, 146 verbal reasoning, and 3.5 analytic writing (School of Teacher Education, n.d.). In addition, a graduate research course must be completed prior to acceptance, and participants are required to possess a master's degree from a regionally accredited school with a minimum 3.0 GPA (School of Teacher Education, n.d.). Program requirements include:

- Educational Studies Core (12 hours)
  - EDF 670 Introduction to Research Literature (3)
  - EDF 685 Philosophical Foundations of Education (3)
  - EDF 700 Implementation and Evaluation of Curriculum (3)
  - EDF 701 Doctoral Seminar (1 credit each Summer) – this is the five-day Loveland course where you will collaborate in person with your peers. This fulfills your doctoral residency requirement.
- Innovation and Education Reform Emphasis (24 hours)
  - EDF 710 Educator Action Research (3)
  - EDF 773 Literacy as Social Practice (3)
  - EDF 775 History of Education Reform and Change (3)
  - EDF 777 Social Justice in Educational Reform (3)
  - EDF 778 Social Theories of Learning and Organizational Change (3)
  - EDF 781 Perspectives on Curriculum (3)
  - EDF 785 Contemporary Education Reform (3)
  - EDF 787 Technology, Innovation, and Education (3)
- Research Core (12 hours)
  - SRM 602 Statistical Methods I (3)
  - SRM 680 Introduction to Qualitative Research (3)
  - SRM 686 Qualitative Case Study Research (3)
  - One additional research course
- Dissertation (16 hours)
  - EDF 797 Doctoral Proposal Research (4)
  - EDF 799 Doctoral Dissertation (12)
- Scholarly Paper Requirement
 

Students are required to submit for publication one paper to a professional journal prior to dissertation proposal hearing. Other research endeavors prior to the dissertation are encouraged. Students may take EDF 795: Comprehensive Seminar (3) to support the writing of a scholarly paper. (School of Teacher Education, n.d., "Degree Requirements," para. 2)

*Figure 1.* Program Requirements.

This study focused on the distance students participating in the online program. The program is completed in a cohort format. The program commenced in 2010 and has initiated three cohorts. Participants from all three cohorts, at three different phases of the program, were contacted to participate in the research. To date, the program has had 39 students. Cohort one consists of 10 students, cohort two has eight students, and cohort three includes 21 students. The six faculty members who teach in the program were also surveyed to present a holistic assessment of the distance learning space.

### **Research Site**

The study took place at a mid-size teaching intensive university in the Rocky Mountain Region. The university had an undergraduate enrollment of 9,394 and a graduate enrollment of 2,542, for a total student population of 11,936 (University of Northern Colorado, 2015). The School of Teacher Education educates 53% of the K-12 teachers in the state (School of Teacher Education, n.d.). In 2015, the Online Ed.D. was ranked 13<sup>th</sup> for Best Online Education Programs by *U.S. News and World Report*.

According to a fall 2015 census, almost 81% of the graduate population classified their ethnicity as White. Minority ethnic groups enrolled as graduate students at the university included: African American, Asian, Hawaiian, Hispanic, Native American, and Multi-Racial (University of Northern Colorado, 2015). Of the population, 8.7% of the students were Hispanic (University of Northern Colorado, 2015). The university consists of a diverse student population, with 34% first-generation students and 27% low-income students (University of Northern Colorado, 2015). Seventy-two percent of the graduate student population was female and 28% male (University of Northern Colorado, 2015). The College of Education and Behavioral Sciences, which houses the Educational Studies

Ed.D. program, comprised 57.8% of enrolled graduate students (University of Northern Colorado, 2015). The fall 2015 census indicated that 40% of the university's graduate students were enrolled in at least one online course.

### **Study Duration**

The research proposal was successfully defended November 6, 2015. Immediately following the proposal defense a narrative was submitted to the University's Institutional Review Board (IRB). The study was approved by the University's IRB on November 30<sup>th</sup> (Appendix A), and following this approval, data collection commenced. Surveys were completed in December, 2015, and January, 2016, and analysis of the data began immediately upon collection.

### **Data Collection Methods**

Case studies utilize extensive data collection to provide an in-depth understanding. Current and former students of three Educational Studies Ed.D. cohorts in the School of Teacher Education were sent a questionnaire through Qualtrics, online survey software (Appendix B). The surveys were sent out by the Educational Studies Program Coordinator, Christine Moroye, December 2, 2015, and included an introductory email (Appendix C). A follow-up email reminding students of the request to participate was emailed on December 12, 2015 (Appendix D). Prior to completing the questionnaire, students were required to sign online consent forms (Appendix E). Questionnaires containing closed-ended questions, open-ended questions, and image-creation methods were all collected in order to compile multiple sources of information and achieve a holistic approach to the research. The questionnaire consisted of questions utilizing a 4-point Likert scale and open-ended questions to provide a more

comprehensive understanding (Creswell, 2012). The Likert scale questions corresponded to the characteristics identified by Gee (2013) as necessary elements in an affinity space. Including both types of questions allows for responses that generate useful information in support of the research and a more thorough investigation of ideas (Creswell, 2012).

The survey concluded with a request for students to produce a visual image representing the learning space of their Educational Studies Program. The creation of a visual image depicting the distance learning space provided an opportunity to further explore the virtual classroom and elicit new and additional information from the students. This image could have been a photograph, drawing, collage, digital image, video clip, painting, graffiti, diagram, cartoon, map, or any other visual image they thought represented their learning space. The images were completed and returned via email following completion of the survey. In addition, participants were asked to explain their image, including: (a) why they created the image, (b) why they chose to include each of the elements present in the image, and (c) why other elements were excluded from the image.

Faculty of the Educational Studies Program were also surveyed with a brief questionnaire containing two open-ended questions (Appendix F). The two faculty questions mirrored two of the students' open-ended questions. Prior to completing the questionnaire, faculty were required to sign the mandatory consent form (Appendix G). Again, Christine Moroye, the Educational Studies Program Coordinator, emailed faculty in the program on December 2, requesting participation (Appendix H) and sent a follow-up email on December 12, 2015 (Appendix I).

### Methods for Data Analysis

Analysis of the data began with rudimentary analysis, a technique “to keep track of your thoughts, musings, speculations, and hunches as you engage in analysis. This kind of information might be interwoven with your raw data, or it may be separate files or memos” (Merriam, 1998, p. 165). This process is then built upon with the coding process and collection of multiple data (Merriam, 1998).

### Data Analysis Matrix

The matrix for data analysis is presented in Figure 2.

| <u>Research Question</u>   | <u>Data to be Collected</u>   | <u>Analysis Method</u>  |
|--|---|---|
| 1) What comprises the learning space in distance higher education?   | Survey:<br>Open-Ended Question 2<br>Visual Image Creation                           | Open, Axial, and Selective Coding<br>Photo Self-Elicitation/Photo Feedback  |
| A) What characteristics of affinity spaces, as defined by Gee, are exhibited in distance higher education learning spaces? | Survey:<br>Likert Scale Questions<br>Open-Ended Question 7<br>Visual Image Creation | Exploratory Factor Analysis<br>Descriptive Statistics<br>Open, Axial, and Selective Coding<br>Photo Self-Elicitation/Photo Feedback |
| B) How do graduate distance higher education students define the learning space?   | Survey:<br>Open-Ended Questions 1 and 2<br>Visual Image Creation                    | Open, Axial, and Selective Coding<br>Photo Self-Elicitation/Photo Feedback  |
| C) Who contributes to the learning space in a distance higher education program?   | Survey:<br>Open-Ended Questions 3, 4, and 5   | Open, Axial, and Selective Coding   |
| D) How do graduate higher education learners utilize virtual spaces in distance education?                                 | Survey:<br>Open-Ended Question 6  | Open, Axial, and Selective Coding   |

Figure 2. Data analysis matrix.

## **Open and Closed-Ended Questions**

The questionnaire was analyzed with both quantitative and qualitative approaches. SPSS was used for statistical analysis of the demographic data and data collected from the Likert scale questions. A principal components analysis was completed on Gee's (2013) 18 characteristics of affinity spaces to assist in the data analysis of the Likert scale questions. Responses to the open-ended questions in the questionnaire were coded for a systematic interpretation of the data (Remler & Van Ryzin, 2011). The primary intention of coding the data was for qualitative analysis. Coding is an iterative process through which themes in the data emerge (Creswell, 2012). Following coding of the responses and emergence of themes, the larger meaning, or interpretation, of the qualitative data was conceptualized (Creswell, 2013).

## **Visual Images**

The traditional photo-elicitation process consists of six stages. The first stage following the formulation of research questions involves an initial interview or interviews. This first interview does not include the visual images, but focuses on the intended material the images accompany (Rose, 2007). Stage 2 involves taking the pictures or creating the image. This may be completed by the researcher, or the interviewees may be given equipment and direction on what to photograph, film, or create (Rose, 2007). The third stage consists of developing the photos. It may also include an opportunity for the interviewees to reflect on each of the images and possibly supply written accounts of the images (Rose, 2007). Next, it's time for another interview. The fourth stage of the photo-elicitation process is vital to the researcher's understanding of the images. The images are discussed in detail, and the interviewees explain the

meaning of each image to the researcher (Rose, 2007). Stage 5 entails interpreting the images. Content analysis and coding of the interviews and images are common strategies in interpretations (Rose, 2007). Finally, in stage 6, the research is presented. For the purposes of this research, photo self-elicitation or photo-feedback was utilized.

Coding of the images was produced and the subsequent photo self-elicitation or photo-feedback was completed for the emergence of visual themes. In addition, code counts of the image elements were conducted to augment the data.

### **Validity and Reliability**

The use of triangulation, in particular through multiple forms of data collection and analysis, improves both internal validity and reliability in the research (Merriam, 1998). Data were collected from multiple perspectives and in a variety of modes. Also, multiple questions measured the same matters to ensure consistency in the data collected throughout the survey (Creswell, 2014).

### **Ethical Considerations**

Every consideration was made to ensure that the analysis of qualitative data was as accurate as possible. However, researcher bias is always a concern when conducting coding of qualitative data (Creswell, 2012). Due to the nature of the research, the use of a second coder was not an option. An extensive log of all interaction with research participants was kept throughout the research, while ensuring participant information was kept private. Participant information was collected with the surveys, but no participant information was included in any subsequent research productions or publications.



### **Limitations of the Research**

The primary limitation in the study was the use of a convenience sample consisting of students in a doctoral education cohort. The intent of the research was to study distance learning classrooms in higher education. However, doctoral students are not typical higher-education students (Bierma, 2010). Also, the cohort model is a unique format that is not common to all higher education programs (Fahlman, 2011). In a cohort model, students progress through the program together, often creating a unique group dynamic that likely affects the distance learning space (Fahlman, 2011). Response bias is also a limitation as students and faculty that chose not to participate and respond to the survey may have a perspective that was not already captured in the data.

### **Summary**

This mixed method research study explored the learning space in a graduate distance higher education program. Faculty from the program and students from the three cohorts of the program were surveyed to provide an in-depth investigation of the learning space, including who creates the space, how it is utilized, and whether it constitutes an affinity space. By researching this population, Gee's (2005) assertion that affinity spaces have implications in education could be studied and it could be determined whether affinity space literature can assist in supporting this community. With record numbers of online students, the need to better understand the distance learning environment has never been greater (Capra, 2011).

## **CHAPTER IV**

### **THE ONLINE CLASSROOM: A THOROUGH DEPICTION OF DISTANCE LEARNING SPACES**

Chapter IV is presented in a format that supports a later submission to a Journal for Practitioners of Adult Education. According to Alfred (2016):

[The journal] is interested in publishing empirical research and conceptual papers and is actively soliciting manuscripts of 4,000-4,500 words. . . . The journal publishes empirical research and conceptual papers for researchers and practitioners that approach practice issues with a problem-solving emphasis. The audience includes those who design, manage, teach, and evaluate programs of adult and continuing education. (para. 2)

#### **Abstract**

This study investigated the online higher education learning space of a doctoral program offered at a distance. It explored the learning space, the stakeholders, utilization, and creators of the space. Developing a successful online classroom experience that incorporates an engaging environment and dynamic community setting conducive to learning is essential in maintaining distance-student enrollment and expanding online education. Students and faculty were surveyed and responses were coded for the emergence of themes. The expanse of distance education and progression of technology has supported instructors in developing classrooms that emphasize students and incorporates both online interactive spaces and the physical space learners inhabit.

Both teachers and students contribute to this classroom, and it is utilized primarily as a space where learners engage.

### **Key Words**

Adult Learners, Distance Education, Learning Communities, Technology Enhanced Learning

### **Introduction**

Distance education has proven itself to be a practical alternative to face-to-face learning, as evidenced by increasing enrollments and the offering of online courses by 90% of institutions of higher learning (Capra, 2011). According to the U.S. Department of Education (2014), almost 30% of graduate higher education students were enrolled in at least one online course, but research suggests that withdrawal from these online courses has surpassed traditional face-to-face classes by 20% (Capra, 2011). This growth in distance learning accompanied by the concerning matter of retention is forcing educators to rethink how they deliver information and facilitate the learning process (Rossing, 2012). Creating a successful online classroom experience that incorporates an engaging environment and dynamic community setting that is conducive to learning is essential in maintaining distance-student enrollment and expanding online education.

Advances in technology have allowed for a new kind of classroom, the virtual classroom. With an increased knowledge of the successful components of an online classroom, academic institutions may be able to retain more online students, continue to grow distance education, improve the distance experience, and cultivate successful learning opportunities for this student population. One way to keep students involved is to create a space that not only supports their success, but also is a place they want to be.

Educators recognize the importance of creating a learning space that is conducive to student success, yet there is a lack of research on creating optimal learning spaces in higher education and the distance classroom in particular (Temple, 2008; Wang & Chen, 2011).

We consider it essential for online course instructors to start the dialogue on designing online learning spaces conducive to student learning. Space matters since it plays a significant role in mediating learning. We have no other options, but to take this responsibility as learning space architects because what we do defines the quality of online learning we offer to our students. (Wang & Chen, 2011, p. 293)

This study examined the online higher education learning space in a doctoral program offered at a distance. Specifically, it explored three facets of the learning space: how it is defined, who contributes to space, and how the space is utilized.

## **Review of the Literature**

### **Distance Education**

For the purposes of this article, the definition of distance education included the synchronous and asynchronous delivery of instruction for participants who may be geographically separated. Although distance learning has long been an option for students, the progression of technology has caused dramatic expansion and revolutionized its distribution (Capra, 2011).

Schools that ensure that their distance students' expectations are met maintain enrollment numbers in online classes (Hannay & Newvine, 2006). Chernish, DeFranco, Dooley, & Lindner (2005) found that instructors need to encourage the learning community, especially in the distance environment. Encouraging participation in an unthreatening learning environment in which students are secure in expressing their ideas ultimately creates a positive learning experience (Roach & Lemasters, 2006). As

technology has advanced and the tools available in distance education have increased, learners' opinions of their distance education experience have also improved (Chiero & Beare, 2010).

### **Adult Learners**

Due to the convenience and flexibility of distance education, “adults are the largest age group to use online learning” (Ginsberg & Wlodkowski, 2010, p. 29). Ginsberg and Wlodkowski shared that “adult participation in formal learning has reached unprecedented levels within the last decade, due to . . . awareness among middle-income adults that education is the vehicle to career enhancement” (2010, p. 25).

According to Ginsberg and Wlodkowski (2010), the convenience of online classes is worth the increased cost. Issues of time and money are often reasons adult students leave college (Sandmann, 2010). Flannery and Apps researched graduate students returning to school and found that these participants “are not only students, nor even primarily students” (1987, p. 18) and for this reason, balancing family, job, and school was one of the most serious barriers.

### **Learning Spaces**

Traditionally, learning spaces in higher education included the entire university campus. It included classrooms, information areas (libraries and computer labs), and independent study areas (Bennett, 2006). However, in distance education, the focus has been on the learning management system (LMS) to meet all the needs of distance students. Regardless of location, every space that is created for learning, whether physical or virtual, needs to be designed with a specific purpose in mind (Wang & Chen, 2011).

Socializing is one behavior that contributes to deep learning (Wang & Chen, 2011). Spaces designed to positively manage socialization “are likely to encourage more time on task and more productive studying” (Bennett, 2006, p. 17). When participants are connected, their learning improves (Wang & Chen, 2011). Learning is no longer considered to be a solitary act, so learning spaces are being designed to promote community and collaboration (Bennett, 2006; Wang & Chen, 2011).

### **Research Questions**

Based on the available literature on distance education, adult learners, and learning spaces, the following research questions were developed to guide this study:

- Q1 What comprises the learning space in distance higher education?
  - Q1a How do graduate distance higher education students define the learning space?
  - Q1b Who contributes to the learning space in a distance higher education program?
  - Q1c How do graduate higher education learners utilize virtual spaces in distance education?

### **Methods**

Faculty and current and former students of a distance doctor of education (EdD) program were surveyed regarding the learning space. Inquiries were made through open-ended questions, and the resulting data were collected and analyzed to define the distance learning space and establish its creation. For the purposes of this study, a learning space was defined as places individuals with a shared affinity assemble, face-to-face, online, or at a distance to: share resources and values, generate collective intelligence, and create collaborative artifacts.

### **Cross-Sectional Survey**

A cross-sectional survey permits the researcher to collect information in a short amount of time and allows for the comparison of multiple groups (Creswell, 2012). Using this strategy, the researcher had the ability to include participation from three cohorts in three different phases of the EdD program. In addition, these student participants' interpretations were contrasted with faculty participants' explanations and perceptions.

### **Participants and Setting**

Participants in the study included distance students and faculty of an educational studies EdD program. The program is completed in a cohort format and has initiated three cohorts. Participants from all three cohorts were contacted to participate in the research. To date, the program has enrolled 39 students. Student participants ranged in age from 27-60 and were located across the United States, with one student residing internationally. The six faculty members who taught in the program online were also surveyed to present a holistic assessment of the distance learning space.

The distance program accommodates working adults and full-time graduate students by offering online coursework and a face-to-face session each summer. Summer sessions provide an opportunity for students to interact with each other and faculty face-to-face.

The study took place at a mid-size teaching intensive university in the Rocky Mountain Region. The university had a graduate enrollment of approximately 2,500 students, 40% of which were enrolled in a least one online course (University of Northern Colorado, 2015).

## **Data Collection**

**Student surveys.** Current and former students of three educational studies EdD cohorts were sent a questionnaire. The surveys included seven open-ended questions designed to provide a more comprehensive understanding of the online learning space (Creswell, 2012).

**Faculty surveys.** Faculty of the educational studies program were also surveyed with a brief questionnaire containing two open-ended questions. The questions mirrored two of the students' open-ended questions.

## **Data Analysis**

Every effort was made to ensure both internal validity and reliability in the research. Throughout data collection and analysis, ideas and thoughts on the data in relation to the research questions were recorded. Initial reviews of the surveys regarding the learning space assisted in creating a coding scheme. All survey data were collected and then coalesced by question, participant category, and cohort. In the first phase, lean coding was employed in which initial themes were created based on reviews of all data collected (Creswell, 2013). The codes were developed inductively through review and interpretation of the data collected (Remler & Van Ryzin, 2011). The initial codes were then added to as the data were reviewed and re-reviewed, and additional themes continued to emerge. These coding processes along with reworking and combining codes in multiple analyses of the data allowed themes to be extrapolated from the data collected.



## **Findings and Discussion**

The research findings are presented as a narrative of faculty and student participant experiences within the online learning space and highlight faculty and student responses. Selections from the data collected are presented to fulfill the research questions, represent faculty and student participant views of the online learning space, and support the themes revealed in the research.

### **Online Learning Space Defined**

After a thorough analysis of the data, several themes became apparent as necessary elements comprising the distance learning space. These themes were participants, online spaces, and physical participation spaces.

**Participants.** Participants are essential to the learning space as the data places an emphasis on collaborative learning through interactions, communications, exchanges, and shared resources between students. “The learning space is anywhere the cohort members can interact about their learning, share their experiences, and have dynamic interactions without limitation of time,” as stated by a student participant, highlights the significance of students indicating that where the exchange occurs is secondary to the participants involved in the exchange. This sentiment was also expressed by another student participant who stated, “the learning space means the way in which we interact with each other to help each other learn more.” This illustrates the importance of the human element as a part of the learning environment.

When focusing on the participants and their interactions as an element to the learning space, additional benefits to distance learning appear. Data indicated that with online education comes the opportunity to interact, connect, and learn from participants

from diverse backgrounds and with a variety of experiences. One student participant stated, “I define learning space as the virtual communication infrastructure that allows us to build academic and personal bonds within our cohort.” These connections between participants transpired in a variety of ways, including “our interactions through text and discussion, sharing ideas and resources, and through video chat and verbal conversation allow us many ways to connect and explore” (student participant). The connection, interaction, and shared experience of students is a substantial factor in a distance learning space.

**Online spaces.** The online environment where cohort members “meet” is often referred to in the data. “In all the different spaces that we used for learning, being outside of a traditional classroom, we had the freedom to create a variety of places, whether physical or virtual, to learn with each other” (student participant). In distance education, students are no longer restricted to learning within a physical space, as the entire educational process can transpire online (Hoppe, Joiner, Milrad, & Sharples, 2003). One student participant featured this expanded classroom, stating that “the learning space for my Educational Studies program is amorphous and evolving. It occurs in multiple virtual spaces.” This online space included Blackboard, but more frequently, other online meeting spaces are included. One faculty participant noted that “the learning space was multifaceted. Blackboard is the LMS that drove formal instruction. Each cohort created an individualized collaborative space for communication and comradery.” Facebook, Voicethread, Skype, Prezi, Wix, Weebly, Wikis, Wimba, Outlook, Twitter, email, Google Drive, Chat, Docs, Sites, and Hangout were all online tools listed as comprising the learning space. In comparison to traditional delivery formats, online students rely more

heavily on online resources (Hannay & Newvine, 2006; Gould, Sadera, & McNary, 2015).

Every student included Blackboard as a component of the learning space, which is not surprising as it was the LMS utilized by the university. But, with the exception of only two student participants, Facebook was also included in all the replies. Facebook is a social networking site that allows members to create profiles and communicate with other members. The learning space “is comprised primarily of Blackboard and a cohort Facebook page” (student participant). One student participant shared that “a large portion of our interactions are through our Facebook group.” Facebook is a student-managed learning space and considered to be one of the predominate elements. “One of our classes has a discussion space on Facebook, and we have a cohort group there as well” (student participant). It is unclear whether the significance of Facebook is due to students’ comfort with the tool outside of academia or the ownership they have in this space.

According to the student participant data, the LMS is not considered the primary “classroom” or foremost learning space. Is it because the students more often participated in the other spaces, or is the “formal” environment of Blackboard not as conducive to student gains? Many of the learning spaces apart from Blackboard were utilized in students’ daily lives outside of school, suggesting they simply felt more comfortable in these environments. Many of these spaces also alert participants of recent material, rather than requiring members to search for information. When we align students daily lives with their academic lives, learners are more successful (Gee, 2013)

**Physical spaces.** The physical learning space where students participated was mentioned in some of the definitions, but was always secondary to the space in which they interacted with members of their cohort. “The learning space is also a physical place in my life--where I am located as I study” (student participant). Students engaged in their education from a physical space that “includes our own individual places in which we do our homework and produce work” (student participant). According to students in the program, this physical space varied, depending on the activity in which they were participating and the subsequent requirements of that pursuit.

### **Online Learning Space Contributors**

Contributors to the distance higher education space included creators of the space. Stakeholders in the space were also included as contributors.

**Creation of the space.** One faculty participant response indicated that everyone contributes to the creation of the space, “some initiated formally and /or with the instructor and many informal but all supporting the communication and collaboration of the learners to support doctoral student learning”. Faculty participant responses indicated knowledge and support of the ancillary learning spaces were utilized by students beyond Blackboard.

With the exception of one reply, student participants revealed that creation of the learning space was accomplished by both students and faculty. As a student participant comment indicated, “we all create the learning space. The instructor has a strong input in this [Blackboard design, but the students contribute and create the space through each course and provide a thread that weaves through all the courses through our shared work and group projects.” The pervasive notion appeared to be that the Blackboard component

of the learning space was originated by the faculty, while all other elements were created by students in the cohort, “in the experiences I have had, the professor has created the learning spaces in Blackboard. The students created the learning space in the less formal venues like Facebook” (student participant). One student participant indicated that “the university provides a minimalistic and sterile learning space in Blackboard.” Learning within the LMS would be more applicable if it more closely mirrored the online spaces outside of Blackboard which can be accomplished by utilizing many of the features in Blackboard that are found in these spaces.

The student participant response, “students created the most effective learning spaces,” supported the idea that faculty may be secondary to students in the learning space. In an adult education program and a doctoral program in which students have significant knowledge of and experience with the content, the role of the professor is often that of a facilitator.

**Stakeholders in the space.** Further exploration into the learning space supported the emergence of students and faculty as the primary contributors to the distance learning space, but two additional entities also emerged. These included a larger university community, including administration and students from other cohorts, and a personal community, including a student’s family, friends, and employer. The university administration was considered by student participants to be a stakeholder in the learning space, although to a lesser extent. It appeared that, according to student participants, administration is a contributor in the space because of the benefits to the institution when conferring online degrees. A few quotes also included those from a larger university community of individuals invited to participate in the space. Students in earlier cohorts

have “mentored” later cohorts, discussing the program and sharing ideas for learning space creation. This contribution sometimes came in the form of support or input in the learning space. Sometimes these other cohort members were invited to join the space. “Typically, it is just the current cohort and professors that contribute, but it is open to contact from other cohorts and other members of the education and schooling community” (student participant). Beyond the university community is a more individual community. One student participant referenced a larger community, including their family and employer, as stakeholders in the learning space, “my family is a stakeholder because I don't have to physically drive to a campus and sit in classes at particular times. . . . My employer. . . benefit[s] from this arrangement because I don't think I would be able to work on this degree without the online learning space.” This response signifies the importance of an online program in order for some students to continue their education.

Although administration, students, and a larger community are involved in certain aspects of contributing to the learning space to a minor degree, “the students and the instructors are the ultimate stakeholders in the learning space” (student participant). According to the educational studies participants, faculty and students were the crucial contributors to the learning space in terms of creation and involvement. The notion that students are the primary contributors, while faculty are secondary, was prevalent in the student data collected. This may be due to the fact that many of the student-created spaces beyond Blackboard were designed solely for student use, “

Some spaces were only for “class learning,” with the professor and other spaces were set aside for collaborative learning with only students. Some spaces were defined as whole-group areas (like Facebook and Wiki), whereas other spaces were set-up for closer, small partnerships within the cohort. (student participant)

The inclusion of learning spaces designated for student use only is a necessary element in the distance learning space.

### **Online Learning Space Utilization**

When questioned as to how students utilized the learning space in their educational studies program, interaction was the foremost response. Although Blackboard was used to submit assignments, all other uses of the distance learning space were for dialogue. Student communication within the space was for collaboration, social purposes, and as support, both academic and emotional.

**Collaboration.** In spite of being separated physically, it is evident that the distance learning space is exceedingly interactive with an emphasis on mutual engagement. Kasl and Yorks remind us that “dialogue contributes markedly to significant learning. By presenting ideas to others and encountering others’ points of view, learners clarify, expand, and attune their thinking” (2016, p. 4). “We push each others' thinking by reflecting on our homework assignment readings” (student participant). Student participants collaborated on the creation of online spaces, program requirements, and in creating a learning space culture. Collaboration is prevalent in distance education; it’s simply achieved through different avenues.

**Social engagement.** The social aspect of learning is substantial and was repeatedly referred to in survey responses. One student participant shared an anecdote of how they and a fellow student “would work all day on a Saturday at our houses, and we'd leave Skype on just so we felt like we had some company.” The student response indicating Skype would be used for company emphasized the importance of connecting within the distance learning space. The distance learning space can feel very isolating if

students do not actively seek connections to other individuals participating in similar experiences. Another student participant response was a reminder of how the online classroom mimics the traditional classroom, “during class sessions [synchronous], there was always a group of us having a side chat on Skype. It helped us keep tabs on one another.” In the online environment, students simply find different avenues to pursue traditional behaviors such as socialization and side conversations that are prevalent in a traditional classroom.

These side conversations in the learning space were used for questions, clarification, differing views, and reassurance—all behaviors present in a traditional learning space. Studies have found that discussions have a positive effect on learner satisfaction (Block, Udermann, Felix, Reineke, & Murray, 2008) which likely explains their presence in the online classroom. Tools are used for academic support within the learning space to “ask and answer questions about assignments, as well as push each others' thinking within the discussion boards on blackboard” (student participant). Online tools are utilized in the distance learning space to achieve many of the exchanges prevalent in face-to-face interactions.

**Support.** Various tools within the learning space were used for different aspects of support. One response indicated that “as we moved farther into the program, I think we realize that creating our own learning spaces was even more important to our success.” Informal learning spaces also created opportunities for program participants to “vent frustrations as well as announce accomplishments.” Facebook was one of the spaces where students were able to connect with individuals experiencing the same difficulties of balancing education, work, and family. Facebook allowed student



participants to get to know each other through postings, photographs, life details, and other contacts.

Data have shown the learning space is made up of multiple online environments in addition to the university's LMS. These spaces are created by all participants and "are created to facilitate collaboration, socialization, and production of educational ideas and materials" (student participant). One faculty participant visualized the space "as a big web." Student participants perceived that they were more successful when utilizing the informal elements of this web. One faculty participant agreed with this assessment, remarking that "those that were less engaged in this community space and interactions—especially through the social media . . . struggled more developing deep understanding of concepts and producing meaningful dissertations." The creation of a learning community within the distance environment is noteworthy for student success.

### **Implications**

Examining the distance higher education learning environment using multiple research methods and involving both faculty and students provides a better understanding of how to create programs that are most beneficial to online learners. Data from this study revealed that students and faculty felt learners were most successful when the learning space: (a) focused on students and the online learning community, (b) emphasized ancillary online tools in addition to the LMS, and (c) acknowledged the requisites unique to each individual student. The following implications were revealed in the research findings:

- Faculty can support students in creating their own community that extends beyond a single class as instructors, courses, and expectations will change, but the

peer group and the culture they create is the one constant element throughout the program. Student responses indicated that their peers were the most valuable component of the learning space. As adult distance learners working toward a common goal, student participants indicated that they depended upon their peers for both academic and emotional support, as they could empathize and relate to one another's circumstances, stresses, challenges, and accomplishments. The data emphasized the importance of socialization in the learning space. With this knowledge, faculty can encourage students to create a social networking platform, so they get to know each other on a personal level. The students interacted as a cohort, a small group, and partners to collaborate, discuss, share resources, socialize, and complete assignments. The student and faculty participants believed that developing this strong learning community led to their success in this unique learning environment.

- Within the LMS, faculty should customize the space to the cohort and allow for maximum student management of the space. Faculty can relinquish full direction of the space by allowing students to edit postings and create forums. The utilization and perception of Blackboard and all ancillary online spaces was momentous throughout the data. Both spaces were contributors to the distance learning space; however, according to the student participants, they functioned as distinct entities. Blackboard is an instructor-created space and functions as a formal learning system that changes with every new instructor and course. Facebook, the primary ancillary space, along with all other learning spaces outside of Blackboard are spaces in which the students have ownership; they are

likely spaces with which students are familiar in their lives outside of academia.

Faculty may initially consider co-creating an ancillary resource space with students to propel the establishment of the learning space network. There is also potential to embed outside tools into Blackboard. Design of the learning space should recognize the importance of spaces beyond the LMS and the need for student-only spaces.

- Faculty should commence online programs by providing resources for time management and organization, drawing students' attention to the unique skillset necessary to be successful online learners. Faculty can supply their students with instruction on successful study habits, including encouraging distance participants to find a partner or "study buddy" who may remain a constant resource throughout the program. Creating a support system at home and work was also important to these adult students. Faculty can also prepare participants in their courses by distributing a course calendar, gauging time commitments, and providing deadlines for course requirements. This allows students to balance the many roles the adult student is typically fulfilling. A successful student experience in distance learning requires developing individual environments that cultivate accomplishment. Learners must be prepared for this alternate delivery method as it is unfamiliar to many students. Participating in isolation and with the flexibility of online participation has many benefits, but may also lend itself to a breakdown for some students. Similar to face-to-face education, time must be allocated for learning, and students need to be prepared to contribute to the online course. This requires establishing a physical participation space and scheduling

time to meet the requirements of each course. At times, online learning requires solitude, but it also lends itself to flexibility and the potential for a learning space that allows for continued engagement with family and work. Data revealed that this flexibility is one of the benefits of distance education and the reason students are able to complete their degree.

By creating distance learning spaces with each of these elements in mind, educators can ensure the space is an optimal environment for learning and has the greatest potential for maintaining students with a successful distance education student experience.

### **Conclusion**

The expanse of distance education and progression of technology has created a classroom that emphasizes students and incorporates both online interactive spaces and the physical spaces learners inhabit. Both teachers and students contribute to this classroom utilized primarily as a space where learners engage. Educators can embrace the ideas presented here to build engaging classrooms in the ever-changing space of distance education.

### **References**

Alfred, M. (2016, February 2). Re: CPAE call for manuscripts [CPAE archives].

Retrieved from <http://lists.wku.edu/mailman/private/cpae/2016-February/001866.html>

Bennett, S. (2006). First questions for designing higher education learning spaces. *The Journal of Academic Librarianship*, 33(1), 14-26.

- Block, A., Udermann, B., Felix, M., Reineke, D., & Murray, S. R. (2008). Achievement and satisfaction in an online versus a traditional health and wellness course. *Journal of Online Learning and Teaching*, 4(1), 57-66.
- Capra, T. (2011). Online education: Promise and problems. *Journal of Online Learning and Teaching*, 7(2), 288-293.
- Chernish, W. N., DeFranco, A. L., Dooley, K. E., & Lindner, J. R. (2005). Does it Matter? Analyzing the results of three different learning methods. *The Quarterly Review of Distance Education*, 6(2), 87-95.
- Chiero, R., & Beare, P. (2010). An evaluation of online versus campus-based teacher preparation programs. *Journal of Online Learning and Teaching*, 6(4), 780-790.
- Clark, R. C., & Mayer, R. E. (2011). *e-learning and the science of instruction*. San Francisco: Pfeiffer.
- Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4<sup>th</sup> ed.). Upper Saddle River, NJ: Prentice Hall.
- Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3<sup>rd</sup> ed.). Los Angeles: Sage.
- Flannery, D., & Apps, J. (1987). *Characteristics and problems of older returning students*. Retrieved from ERIC database. (ED296084)
- Gee, J. P. (2013). *The anti-education era: Creating smarter students through digital learning*. New York: Palgrave Macmillan.

- Ginsberg, M. B., & Wlodkowski, R. J. (2010). Access and participation. In C. E. Kasworm, A.D. Rose, & J. M. Ross-Gordon (Eds.), *Handbook of adult and continuing education* (2010 ed.) (pp. 25-34). Los Angeles: Sage.
- Gould, K., Sadera, W., & McNary, S. (2015). Comparing changes in content knowledge between online problem based learning and traditional instruction in undergraduate health professional students. *Journal of Online Learning and Teaching*, 11(1), 74-86.
- Hannay, M., & Newvine, T. (2006). Perceptions of distance learning: A comparison of online and traditional learning. *Journal of Online Learning and Teaching*, 2(1), 1-11.
- Hoppe, H., Joiner, R., Milrad, M., & Sharples, M. (2003). Guest editorial: Wireless and mobile technologies in education. *Journal of Computer Assisted Learning*, 19(3), 255-259.
- Kasl, E., & Yorks, L. (2016). Do I really know you? Do you really know me? Empathy amid diversity in differing learning contexts. *Adult Education Quarterly*, 66(1), 3-20.
- Remler, D. K., & Van Ryzin, G. G. (2011). *Research methods in practice: Strategies for description and causation*. Los Angeles: Sage.
- Roach, V., & Lemasters, L. (2006). Satisfaction with online learning: A comparative descriptive study. *Journal of Interactive Online Learning*, 5(3), 317-332.
- Rossing, J. P. (2012). Mobile technology and liberal education. *Liberal Education*, Winter, 68-72.

- Sandmann, L. R. (2010). Adults in four-year colleges and universities: Moving from the margin to mainstream? In C. E. Kasworm, A. D. Rose, & J. M. Ross-Gordon (Eds.), *Handbook of adult and continuing education* (2010 ed.) (pp. 221-229). Los Angeles: Sage.
- Temple, P. (2008). Learning spaces in higher education: An under-researched topic. *London Review of Education*, 6(3), 229-241.
- University of Northern Colorado. (2015). *2015 fall census* [PDF document]. Retrieved from <http://www.unco.edu/iras/PDF's/Fall%202015%20Census%20-%209-17-15.pdf>
- U.S. Department of Education. (2014). *Enrollment in distance education courses, by state: Fall 2012* [PDF document]. Retrieved from: <http://nces.ed.gov/pubs2014/2014023.pdf>
- Wang, Y. M., & Chen, D. V. (2011). Instructors as architects—Designing learning spaces for discussion-based online courses. *Journal of Educational Technology Systems*, 39(3), 281-294.

## **CHAPTER V**

### **AFFINITY SPACES IN HIGHER EDUCATION**

Chapter V is presented in a format that supports a later submission to a Teaching and Learning Journal for Online Educators. According to the aim and scope of this journal:

[The journal] is internationally recognized as the journal of record of research and scholarship in the field of American distance education. . . . [The journal] explores topics about all teaching-learning relationships where the actors are geographically separated, and communication takes place through technologies. . . . The principal technology of contemporary distance education is the Internet, and thus most articles now report on learning, e-learning, distributed learning, asynchronous learning, and blended learning. Peer reviewed articles provide reports on the latest findings in such areas as: building and sustaining effective delivery systems; course design and application of instructional design theories; facilitating interaction between students and with instructors; factors influencing student achievement and satisfaction; the changing roles of faculty and changes in institutional culture; and administrative and policy issues including cost-effectiveness and copyright. . . . Manuscripts should be 5,000 to 7,000 words in length, including tables, references, and appendices. (aim and scope, n.d.)

#### **Abstract**

The purpose of this mixed methods study was to determine what characteristics of affinity spaces are found in distance higher education. Affinity spaces have been established as successful learning environments, but as of yet, have not been established in distance higher education. Faculty and students from three cohorts of a distance educational studies doctoral program at a teaching-intensive university were surveyed. Data found that 83% of affinity space characteristics were encompassed in the learning space. Exploration of the space specific to contributions, diversity, and engagement are



presented and discussed. Finally, the participants in the space are presented as a substantial component in distance higher education affinity spaces.

### **Introduction to Affinity Spaces in Higher Education**

With 5.5 million students enrollment in distance education courses (U.S. Department of Education, 2014), there comes a responsibility by educators and educational institutions to deliver a quality experience for participants (Somenarain, Akkaraju, & Gharbaran, 2010). Creating an effective educational environment conducive to online student learning is imperative; however, research focused on creating an effective distance environment has been lacking in higher education. Available research highlights that affinity spaces can lead to a successful learning environment and experience (Beemt, Akkerman, & Simons, 2011; Brass, & Mecoli, 2011; Curwood, 2013; Fields, 2009; Gee, 2013).

James Paul Gee is known for establishing *affinity spaces* in literacy, gaming, and education literature (Gee, 2005; Gee, 2007; Gee, 2013). Affinity spaces are physical or virtual places where individuals with a shared interest gather to facilitate learning, gain collective intelligence, and produce artifacts related to a joint enterprise (Gee, 2005). Although Gee's (2005) research of affinity spaces stems from gaming, he stated that these social configurations have large implications for the future of schools and schooling. *The Anti-Education Era: Creating Smarter Students through Digital Learning* (Gee, 2013) acknowledged that "schools and colleges could have been and should be in the future a network of well-designed interacting affinity spaces devoted to synchronized intelligence" (pp. 177-178). The notion that affinity spaces have implications in

education is shared by experts in the field (Beemt et al., 2011; Gee, 2005). Beemt et al. argued that:

Social and cultural spaces are increasingly defined around affinities . . . affinity spaces should not be set aside as something students deal with outside school hours. Instead . . . an exploration of how education can connect to the affinity spaces that students engage in is necessary. (2011, p. 63)

By connecting affinity space to education, students' academic careers are more aligned with their lives outside of academia, rather than expectations in these two areas being completely isolated (Gee, 2007).

In spite of the acknowledged connections between education and affinity spaces (Beemt et al., 2011; Gee, 2005; Gee, 2007) and the plethora of literature on affinity spaces in relation to gaming and digital literacy, research pertaining to the association of affinity spaces and education is lacking; research relating affinity spaces with the distance higher education setting is not specifically identified. With a focus on the learning space, affinity spaces align with distance education and its emphasis on the virtual learning space that's available anytime, anywhere. If a space incorporates numerous, but not all, of the features of an affinity space, it is essentially an affinity space (Gee, 2005). This research aimed to bridge the gap in literature connecting affinity spaces as successful learning environments to distance higher education as well as generating new knowledge regarding creating effective online learning environments and strove to reveal further necessary research arenas.

This manuscript is part of a larger mixed methods study focused on examining distance higher education learning spaces through the lens of affinity spaces. The scope of research presented here explored if distance higher education learning spaces are affinity spaces and if affinity spaces do, in fact, have implications in distance higher

education. Online learning spaces were examined to establish if affinity spaces can be applied in distance higher education. The researcher agrees with Gee and others' declarations prioritizing the interactions of individuals in a learning space and the formation of affinity spaces in education (Beemt et al., 2011; Gee, 2007); however, prior to commencing the study, the researcher questioned whether a greater emphasis needed to be placed on the participants in the space when equating affinity spaces with distance higher education learning spaces.

### **Research Questions**

- Q1 What characteristics of affinity spaces, as defined by Gee, are exhibited in distance higher education learning spaces?
- Q2 Who contributes to the learning space in a distance higher education program?
- Q3 How do graduate higher education learners utilize virtual spaces in distance education?

### **Theoretical Framework**

Affinity spaces guide the research and are understood to be places for learning where individuals gather “to share resources and values and flexibly form and re-form in different groups” (Gee, 2013, p. 174). Affinity spaces place an emphasis on the space where participants interact around a common enterprise (Gee, 2005). Participants may be diverse, but have a mutual interest in common and can engage in the space as deeply as wanted to gain as much expertise on the subject as they desire. Despite the presence of social interactions in the affinity space, Gee's (2005, 2013) research does not place an emphasis on participants of the space. Yet, the social phenomenon of learning is imperative to education (Rovai, Ponton, & Baker, 2008) and a focus of this study. Wenger's (1998) communities of practice place an emphasis on the members within the

learning community and, thus, was used as a lens through which to view the participants in the affinity space, a necessity when exploring the distance higher education learning space.

Adult learners are a unique student population. The Flannery and Apps (1987) study of adult learners indicated that these students are balancing a variety of roles: student, family member, and employee, to name a few. They are required to balance a number of differing responsibilities, making *student* not their primary appointment (Flannery & Apps, 1987). Yet, participation by adults in formal higher education continues to escalate due to the potential for career advancement (Ginsberg & Wlodkowski, 2010). This division of responsibility leads adults to distance education. Adults are the most prevalent population in online learning (Ginsberg & Wlodkowski, 2010). The social learning theories of affinity space and communities of practice in combination with adult learning theory provided a complete framework for the study of learning spaces within a distance higher education program.

### **Literature Review**

Both communities of practice and affinity spaces are created around a common enterprise. Participants may be diverse, but have some mutual interest in common. Also, both Wenger's (1998) communities of practice and Gee's (2005?) affinity spaces can be real, virtual, or a hybrid. However, the fundamental components of the two vary slightly and the emphases of the two are distinctively unique.

### **Affinity Spaces**

In *Beyond Communities of Practice: Language, Power and Social Context*, Gee (2005) addressed affinity spaces and communities of practice and presented affinity

spaces as an alternative to communities of practice. Affinity spaces “focus on the idea of a *space* in which people interact, rather than on *membership* in a community” (Gee, 2013, p. 214). With membership, learning communities are more focused on the individuals that make up the community, rather than on the space or place being “occupied.” In affinity spaces, the emphasis is on the space (physical, virtual, or geographical) where individuals relate (Gee, 2013). This space is comprised of portals (access to the space) and generators (content). The focus should, therefore, be on the space and how it is utilized by different individuals (Henderson & Hirst, 2007). “These physical, virtual or blended spaces are often spread across many sites, such as face-to-face meetings, message boards, blogs and web pages” (Lammers, Curwood, & Magnifico, 2012).

Affinity spaces are “places where people can go to share resources and values and flexibly form and re-form in different groups” (Gee, 2013, p. 174). These spaces can be face-to-face, online, at a distance, or any combination of these. In affinity spaces, individuals gather around a shared passion (Gee, 2013). Participants in the space have the opportunity to become as involved as they want and to become an expert to the degree they desire. Affinity spaces provide a place where individuals congregate to be creative and generate a collective intelligence, created through contributions by all individuals, that is greater than the sum of its parts (Gee, 2013).

A review of affinity spaces established 18 characteristics (Gee, 2013). The presence of a majority of these characteristics indicates a learning space is essentially an affinity space.

## **Learning Spaces Human Element**

Communities of practice focus on the social aspect of learning. In Wenger's (1989) book *Communities of Practice: Learning, Meaning, and Identity* he acknowledges that these "communities" have been around for centuries and that he is simply implementing an innovative approach to theories of learning. He dictates that learning is in fact a social phenomenon, a "process of being active participants in the *practices* of social communities and constructing *identities* in relation to these communities" (Wenger, 1998, p. 4). The individuals that make up a community of practice are at the core of this learning theory. Communities of practice are "groups of people informally bound together by shared expertise and passion" (Wenger & Snyder, 2000, p. 139). The "space" is not an imperative element in communities of practice, rather who makes up the population is significant. The individuals in the community energize the community and "organize themselves . . . and establish their own leadership" (Wenger & Snyder, 2000, p. 142).

## **Mixed Method Study**

With an interest in fully exploring the distance education learning space, it was evident that a mixed method approach combining both quantitative and qualitative approaches most accurately supported the inquiry. For this research, the term mixed methods indicates Smith's definition, referring to "studies or projects that employ at least one quantitative and one qualitative method to produce knowledge claims" (2009, pp. 458-459). The purpose of the mixed method design used for this research was complementary. Employing both types of data seeks "elaboration, enhancement,

illustration, [and] clarification of the results from one method with the results from the other method” (Greene, Caracelli, & Graham, 1989).

Both quantitative and qualitative data collected explored the distance higher education classroom. The quantitative data solely focused on the elements attributed to affinity spaces. The qualitative data consisted of open-ended questions relating to the learning space in distance higher education.

### **Participants and Setting**

Participants were recruited from a single program at a university in the Rocky Mountain Region. The sample was a convenience sample of 45, comprised of 6 faculty and 39 doctoral students and had a response rate of 56% (3 faculty and 22 students). The program was a distance educational studies doctoral program that has initiated three cohorts. The 39 students that were contacted were students from all three cohorts, in varying phases of the program (first year in the program, middle of the program, and completed the program). Participants in the study were located throughout the United States and internationally and ranged in age from 27-60.

The university was a mid-size teaching intensive university in the Rocky Mountain Region with a graduate enrollment of 2,542 (University of Northern Colorado, 2015). According to the fall 2015 census, 40% of these students were enrolled in at least one online course; 57.8% of the graduate students were in The College of Education and Behavioral Sciences, which houses the Educational Studies Ed.D. program (University of Northern Colorado, 2015).

## **Data Collection**

Participants in the study were sent online surveys through their university email. Surveys contained 4-point Likert scale questions and open-ended questions requesting brief explanations. The Likert scale questions corresponded to the characteristics identified by Gee (2013) as necessary elements in an affinity space. This approach was utilized to provide a more comprehensive understanding (Creswell, 2014).

## **Data Analysis**

A reflective journal was utilized for rudimentary analysis, a technique “to keep track of your thoughts, musings, speculations, and hunches as you engage in analysis. This kind of information might be interwoven with your raw data, or it may be separate files or memos” (Merriam, 1998, p. 165). The questionnaire was analyzed with both quantitative and qualitative approaches. SPSS was used for statistical analysis of the data collected from the Likert scale questions. A principal components analysis was completed on the 27 Likert scale questions linked to Gee’s (2013) 18 characteristics of affinity spaces.

Responses to the open-ended questions in the questionnaire were coded for a systematic interpretation of the data (Remler & Van Ryzin, 2011). The primary intention of coding the data was for qualitative analysis. Coding is an iterative process through which themes in the data emerge (Creswell, 2014). Following coding of the responses and emergence of themes, the larger meaning, or interpretation, of the qualitative data is conceptualized (Creswell, 2013).



## **Validity and Reliability**

Although quantitative methods were utilized in some of the analysis of data, the research was exploratory. An emphasis was placed on meticulous documentation of the analysis process, including steps taken and the motivations and logic behind the process. The use of triangulation, in particular through multiple forms of data collection and analysis, improve both internal validity and reliability in the research (Merriam, 1998). Data was collected from multiple perspectives and in a variety of modes. Also, multiple questions measure the same elements to ensure consistency in the data collected throughout the survey (Creswell, 2014).

## **Findings and Discussion**

For the purposes of this study, a learning space was defined as places individuals with a shared affinity assemble, face-to-face, online, or at a distance to: share resources and values, generate collective intelligence, and create collaborative artifacts. Gee (2005) indicated that if a space includes many of the characteristics of affinity spaces, then it is essentially an affinity space.

### **Affinity Space Characteristics**

Current and former students of an Educational Studies distance program were asked to what degree on a 4-point Likert scale they agreed on 27 questions. The scale included: *strongly agree* (1), *agree* (2), *disagree* (3), and *strongly disagree* (4). The questions aligned with Gee's (2013) characteristics of affinity spaces. Table 1 depicts participants' responses on how affinity space characteristics aligned with their learning space.

Table 1

*Descriptive Statistics*

| Statement   | Mean | Std.      | Analysis N |
|---|------|-----------|------------|
|   |      | Deviation |            |
| You are in the Educational Studies learning space by choice.  | 1.11 | .315      | 19         |
| You have a shared interest with the other students in your Educational Studies cohort.  | 1.11 | .315      | 19         |
| The Educational Studies cohort is comprised of individuals with diverse backgrounds.  | 1.37 | .496      | 19         |
| The Educational Studies cohort is comprised of individuals of varying ages.   | 1.32 | .582      | 19         |
| Individuals in the cohort range from amateurs to experts in educational studies.  | 1.89 | .658      | 19         |
| The individuals in the cohort have a variety of interests surrounding education.  | 1.32 | .478      | 19         |
| High standards for excellence within the learning space are set by individuals with mastery of the content.   | 1.58 | .607      | 19         |
| The learning space is dedicated to production not just the gathering of knowledge.  | 1.63 | .597      | 19         |
| All members of the learning space have the opportunity to contribute to the degree they are interested.   | 1.63 | .496      | 19         |
| All contributions to the learning space have potential for significance.  | 1.58 | .507      | 19         |
| All contributions to the learning space are welcome.  | 1.58 | .692      | 19         |
| Diversity within the learning space is valued.  | 1.58 | .607      | 19         |
| Status within the learning space is amenable and fluid.   | 1.63 | .496      | 19         |
| Leadership within the learning space is amenable and fluid.   | 1.79 | .631      | 19         |
| Status in the cohort is based on an individual's engagement and accomplishments within the learning space, not what has been attained outside of the space. | 2.00 | .745      | 19         |
| Resources within the learning space are plentiful. (e.g. peers, experts, outside materials, content links. . . .)   | 1.89 | .937      | 19         |
| Resources within the learning space are fluid and amendable by the participants rather than static resources.   | 1.79 | .631      | 19         |
| Participants in learning space may have a specific focus, but must also collaborate with others.  | 1.53 | .513      | 19         |

Table 1 (continued)

| Statement   | Mean | Std.      | Analysis N |
|---|------|-----------|------------|
|   |      | Deviation |            |
| The learning space has established a unique culture.  | 1.26 | .452      | 19         |
| The learning space is open to new ideas and recognizes outside knowledge to ensure growth and diversity.  | 1.37 | .496      | 19         |
| All individuals in the learning space are expected to facilitate learning for themselves and other participants.  | 1.63 | .684      | 19         |
| Participants motivations in the learning space vary.  | 1.58 | .607      | 19         |
| Participants tenure in the learning space varies.   | 2.11 | .737      | 19         |
| Because participants in the cohort have a shared interest there is no delineation between mandatory participation and intrinsic enrichment within the learning space. | 2.37 | .761      | 19         |
| Socialization within the learning space is secondary only to the objective of the learning space.   | 2.21 | .855      | 19         |
| Socialization within the learning space is achieved through a variety of mediums.   | 1.79 | .631      | 19         |
| The learning space is based on tangible production not assertions or philosophies.  | 2.05 | .705      | 19         |

When the mean scores were combined to equate with their corresponding affinity space characteristics, it should be noted that there were only three characteristics of affinity spaces that student participants did not feel were evidenced in their learning space: participants tenure in the space varied; because affinity spaces are created around an interest, there is no delineation between work and play within the space; and affinity spaces are based on empirical evidence, not assertions or philosophies. The remaining 15 characteristics of affinity spaces all received mean scores in the *agree* to *strongly agree* range (1-2).

### **Distance Higher Education Affinity Spaces**

Gee (2005) stated that although there is potential for transforming education to more closely parallel affinity spaces, current students, teachers, and classrooms rarely align with many of the features he presented. However, the elements specific to online and higher education students can be effectively associated with an affinity space. The typical class segregates students by age (Gee, 2005), but in the educational studies distance higher education program, students ages varied from 27-60, and they were geographically dispersed. And, unlike in a K-12 classroom, higher education learners vary greatly. Participants in the space either agreed or strongly agreed with a mean score of 1.37 that the cohort was comprised of individuals with diverse backgrounds. Adults come to education environments with diverse and disproportionate prior experience (Long, 2004). Agreement with this was reflected in the data from participants in this study who agreed that individuals in the cohort range from amateurs to experts in educational studies. This diversity in age, background, and level of expertise was consistent with participants' characteristics in Gee's (2013) affinity spaces. All participants, with the exception of one, agreed that diversity within the learning space is valued. Students in the online higher education course strongly agreed that they were brought together over a common interest, but their reasons for returning to school often varied greatly. Entry in an affinity space is for different reasons; it is simply the common endeavor that brings the individuals together (Gee, 2013). Of student participants, 95% agreed or strongly agreed that their motivations in the space varied greatly, and a mean score of 1.31 indicated that they had a variety of interest surrounding education.

In traditional teacher-centered learning, the teacher is entirely in control, dictating: what students will learn, how the students will learn, and if the students have learned (Weimer, 2013). This control and delineation between students and teachers is contradictory to affinity spaces.

In an affinity space, leadership and status are flexible. People sometimes lead and mentor; sometimes they follow and are mentored. There are no fixed bosses and teachers, though people acknowledge different paths to mastery and know where people are on them. (Gee, 2013, p. 176)

However, in adult education, the professor is encouraged to be a facilitator (Merriam, Caffarella, & Baumgartner, 2007). The idea of facilitating learning more closely aligns with Gee's (year) affinity spaces. In this study, 89% of the students in the educational studies program either strongly agreed or agreed that all individuals in the learning space were expected to facilitate learning for themselves and others. An educator of adults has "many roles within the teaching and learning interaction including role model, mentor, counselor, content resource person, learning guide, instructional developer, and institutional representative" (Galbraith, 2004, p. 5). This relationship is more give and take and, therefore, more representative of an affinity space. In formal online adult education, the students are often encouraged to "take charge" and assist in the instruction. Ninety-five percent of responses in this study indicated that status in the learning space is amenable and fluid, and 85% believed that leadership is also amenable and fluid. Learning in distance education is no longer a passive activity. A mean score of 1.58 was received, indicating that all contributions to the learning space are welcome and have potential for significance.

The distance classroom setting focuses on the education space, similar to affinity spaces that are often positioned in multiple locations (Lammers et al., 2012). Online

classrooms are often launched on a learning management system containing discussion boards, chat rooms, group hangouts, and assignment and content resources. The survey statement that resources within the learning space are plentiful garnered a mean score of 1.89, indicating the participants agreed. And, 90% of responses specified that the resources within the learning space are fluid and amendable by the participants, rather than static resources. Additional portals (Gee, 2005) are often created for collaboration between participants. Of participants in the educational studies learning space, 95% agreed or strongly agreed that they were required to collaborate with others. Learners often connect on social media, google documents, wikis, etc., and the list continues to grow as technology advances. Similar to education classroom spaces that expand to external resources, affinity spaces link to other related spaces so that knowledge from the outside can transform the space (Gee, 2013). A mean score of 1.37 in this study indicated that the learning space was open to new ideas and recognized outside knowledge. Gee's focus on space creates the potential for a formal learning space to be considered an affinity space (Bommarito, 2014).

### **Variable Reduction**

The variable reduction technique known as principal components analysis was used to analyze questions on the survey related to the 18 characteristic of affinity spaces. Due to the smaller size of this study and the number of questions analyzed, this technique was more advantageous than other variable reduction techniques (Dunteman, 1989; Field, 2005). Although due to the limited participant sample, all outcomes were supported by qualitative data. Also, this procedure was utilized because it was believed that the variables in the characteristics were highly correlated. By completing a principal

components analysis, these highly correlated variables can be reduced down to a small set of uncorrelated principal components by measuring the underlying constructs within the questions (Dunteman, 1989). A principal components analysis was run in SPSS to discover these underlying similarities in the 27 Likert scale questions that were included in the survey. These 27 questions related to the 18 items identified by Gee (2013) as characteristics of an affinity space. When the analysis was originally run, eight principal components were extracted from the data and accounted for 85.10% of the variance. The first principal component accounted for 33.46% of the variance within the variables. This original analysis of the data can be found in Table 2.

Table 2

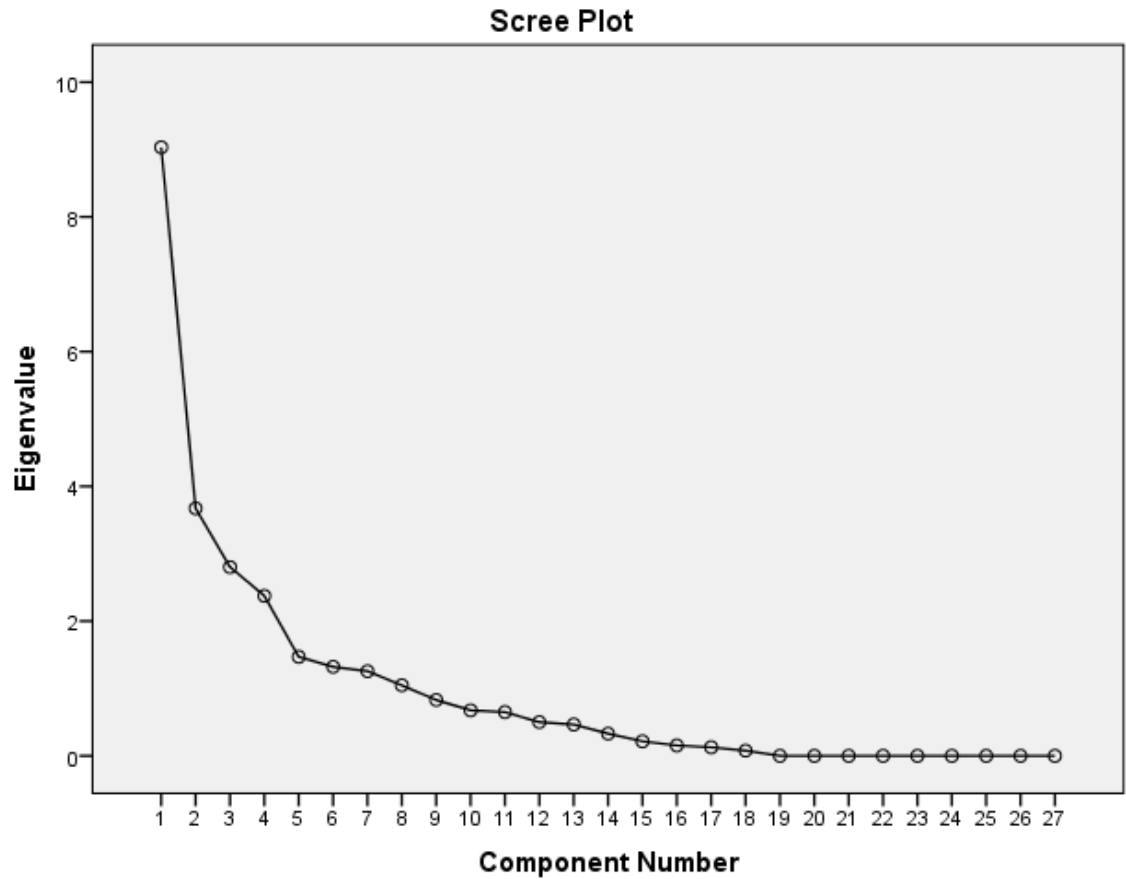
*Total Variance Explained*

| Component | Initial Eigenvalues |               |              | Extraction Sums of Squared Loadings |               |              |
|-----------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|
|           | Total               | % of Variance | Cumulative % | Total                               | % of Variance | Cumulative % |
| 1         | 9.034               | 33.458        | 33.458       | 9.034                               | 33.458        | 33.458       |
| 2         | 3.673               | 13.605        | 47.063       | 3.673                               | 13.605        | 47.063       |
| 3         | 2.802               | 10.379        | 57.442       | 2.802                               | 10.379        | 57.442       |
| 4         | 2.375               | 8.795         | 66.237       | 2.375                               | 8.795         | 66.237       |
| 5         | 1.470               | 5.443         | 71.680       | 1.470                               | 5.443         | 71.680       |
| 6         | 1.321               | 4.894         | 76.574       | 1.321                               | 4.894         | 76.574       |
| 7         | 1.256               | 4.654         | 81.228       | 1.256                               | 4.654         | 81.228       |
| 8         | 1.047               | 3.876         | 85.104       | 1.047                               | 3.876         | 85.104       |
| 9         | .829                | 3.071         | 88.175       |                                     |               |              |

The output from SPSS was examined to determine what strategies would be most useful to further study the data. Dunteman (1989) acknowledged that there are several

methods for determining how many components to retain, and these include the use of a scree plot and accounting for a desired percent of variance. This study was exploratory in nature, so a variety of variations to the analysis were attempted. Based on the scree plot, it was determined that it would be beneficial to extract four to five components as this was where the “elbow” of the plot was located (Field, 2005). The components settled within the steep portion of the line connecting components are preserved (Duntelman, 1989). The scree plot illustrated in Figure 2 represents this graphically.





*Figure 3.* Scree plot.

Although the scree plot indicated that four to five principal components may be ideal, further investigation and analyses within SPSS ultimately led to the extraction of three principal components. Modifications including: the use of promax versus varimax, which indicates the items to extract if they were sufficiently similar, and the number of optimal components were all investigated. Table 3 displays the optimal principal component analysis with rotation method varimax with Kaiser Normalization.

Table 3

*Rotated Component Matrix*

| Item  | Component |      |       |
|---|-----------|------|-------|
|   | 1         | 2    | 3     |
| All members of the learning space have the opportunity to contribute to the degree they are interested.   | .887      |      |       |
| All contributions to the learning space have potential for significance.  | .867      |      |       |
| Status within the learning space is amenable and fluid.   | .858      |      |       |
| Leadership within the learning space is amenable and fluid.   | .837      |      |       |
| High standards for excellence within the learning space are set by individuals with mastery of the content.   | .761      |      |       |
| Diversity within the learning space is valued.  | .753      |      |       |
| The learning space is open to new ideas and recognizes outside knowledge to ensure growth and diversity.  | .752      | .421 |       |
| All contributions to the learning space are welcome.  | .752      |      |       |
| Status in the cohort is based on an individual's engagement and accomplishments within the learning space, not what has been attained outside of the space.           | .687      |      |       |
| Individuals in the cohort range from amateurs to experts in educational studies.  | .677      |      | .344  |
| The learning space is dedicated to production not just the gathering of knowledge.  | .659      |      | .302  |
| Resources within the learning space are fluid and amendable by the participants rather than static resources.   | .612      | .554 |       |
| All individuals in the learning space are expected to facilitate learning for themselves and other participants.  | .536      | .400 | -.309 |
| The learning space has established a unique culture.  | .481      | .381 |       |
| Socialization within the learning space is secondary only to the objective of the learning space.   |           | .761 |       |
| Because participants in the cohort have a shared interest there is no delineation between mandatory participation and intrinsic enrichment within the learning space. | -.324     | .686 |       |
| The Educational Studies cohort is comprised of individuals with diverse backgrounds.  |           | .648 |       |

Table 3 (continued)

| Item  | Component |       |       |
|---|-----------|-------|-------|
|   | 1         | 2     | 3     |
| Resources within the learning space are plentiful. (e.g. peers, experts, outside materials, content links. . . .) | .385      | .647  | -.327 |
| Participants in learning space may have a specific focus, but must also collaborate with others.                  |           | .616  | .388  |
| The Educational Studies cohort is comprised of individuals of varying ages.                                       |           | .578  |       |
| Participants tenure in the learning space varies.   | -.349     | .492  |       |
| You have a shared interest with the other students in your Educational Studies cohort.                            |           | -.319 |       |
| Participants motivations in the learning space vary.  |           |       | .776  |
| Socialization within the learning space is achieved through a variety of mediums.                                 |           |       | .652  |
| You are in the Educational Studies learning space by choice.  |           | -.303 | -.628 |
| The learning space is based on tangible production not assertions or philosophies.                                | .574      |       | .608  |
| The individuals in the cohort have a variety of interests surrounding education.                                  | .301      |       | .496  |

### Components

A thorough examination of the questions contained within each of the components was completed to determine the themes for each component. The three principal components include: (a) Contributions to the Space; (b) Diversity within the Space; and (c) Engagement in the Space. Table 4 was created to align affinity space characteristic, survey questions, and principal components. Column 1 lists each of the 18 characteristics Gee (2013) recognized as features of affinity spaces. Column 2 indicates which survey questions support each of Gee's characteristics. And, finally, column 3

displays the component that each question was associated with based on the principal components analysis.

Table 4

*Affinity Space Component Alignment*

| Characteristic  | Question   | Components                    |
|---|--|-------------------------------|
| 1. People are in them by choice, based on a shared enterprise.  | 1. You are in the Educational Studies learning space by choice.  | -Diversity<br>-Engagement     |
|   | 2. You have a shared interest with the other students in your Educational Studies cohort.                      |                               |
| 2. Participants in the affinity space are of diverse ages and backgrounds.  | 3. The Educational Studies cohort is comprised of individuals with diverse backgrounds.                        | -Diversity                    |
|   | 4. The Educational Studies cohort is comprised of individuals of varying ages.                                 |                               |
| 3. Individuals range from amateurs to experts in the common endeavor of the space.  | 5. Individuals in the cohort range from amateurs to experts in educational studies.                            | -Contributions<br>-Engagement |
| 4. Interest in the subject matter of the affinity space can vary greatly.   | 6. The individuals in the cohort have a variety of interests surrounding education.                            | -Contributions<br>-Engagement |
| 5. High standards for excellence in the enterprise are set by individuals with mastery of the content.  | 7. High standards for excellence within the learning space are set by individuals with mastery of the content. | -Contributions                |
| 6. Affinity spaces are dedicated to producing and knowledge.  | 8. The learning space is dedicated to production not just the gathering of knowledge.                          | -Contributions<br>-Engagement |
| 7. All members have the opportunity to contribute to the degree they are interested and each contribution has potential for significance in the affinity space. | 9. All members of the learning space have the opportunity to contribute to the degree they are interested.     | -Contributions                |
|   | 10. All contributions to the learning space have potential for significance.                                   |                               |

Table 4 (continued)

| Characteristic   | Question   | Components                                  |
|--|--|---|
| 8. All contributions to the space are welcome and diversity is valued.   | 11. All contributions to the learning space are welcome.   | -Contributions                              |
|  | 12. Diversity within the learning space is valued.   |   |
| 9. Status within the affinity space and leadership are amenable and fluid.   | 13. Status within the learning space is amenable and fluid.  | -Contributions                              |
|  | 14. Leadership within the learning space is amenable and fluid.  |   |
| 10. Status is based on an individual's engagement and accomplishments within the space, not what has been attained outside of the space. | 15. Status in the cohort is based on an individual's engagement and accomplishments within the learning space, not what has been attained outside of the learning space. | -Contributions                              |
| 11. Resources within the space are plentiful and are amended by the participants in the affinity space.                                  | 16. Resources within the learning space are plentiful. (e.g. peers, experts, outside materials, content links. . . )   | -Contributions<br>-Diversity<br>-Engagement |
|  | 17. Resources within the learning space are fluid and amendable by the participants rather than static resources.  |   |
| 12. Participants in affinity spaces may have a specific focus, but must also collaborate with others in the space.                       | 18. Participants in learning space may have a specific focus, but must also collaborate with others.   | -Diversity<br>-Engagement                   |

Table 4 (continued)

| Characteristic   | Question   | Components                                  |
|--|--|---|
| 13. Each affinity space has a marked culture, but acknowledges outside knowledge to ensure growth and diversity.           | 19. The learning space has established a unique culture.<br>20. The learning space is open to new ideas and recognizes outside knowledge to ensure growth and diversity.                       | -Contributions<br>-Diversity                |
| 14. All individuals in the affinity space are expected to facilitate learning for themselves and other participants.       | 21. All individuals in the learning space are expected to facilitate learning for themselves and other participants.   | -Contributions<br>-Diversity<br>-Engagement |
| 15. Participants motivations and tenure in the space varies.   | 22. Participants motivations in the learning space vary.<br>23. Participants tenure in the learning space varies.  | -Contributions<br>-Diversity<br>-Engagement |
| 16. Because affinity spaces are created around an interest there is no delineation between work and play within the space. | 24. Because participants in the cohort have a shared interest there is no delineation between mandatory participation and intrinsic enrichment within the learning space.                      | -Contributions<br>-Diversity                |
| 17. Socialization is secondary only to the venture of the affinity space and is achieved through a variety of mediums.     | 25. Socialization within the learning space is secondary only to the objective of the learning space.<br>26. Socialization within the learning space is achieved through a variety of mediums. | -Diversity<br>-Engagement                   |
| 18. Affinity spaces are based on empirical evidence not assertions or philosophies.  | 27. The learning space is based on tangible production not assertions or philosophies.   | -Contributions<br>-Engagement               |

Diversity within the space was included in the discussion above concerning participants (instructors and students) in affinity spaces and the affinity space classroom. The components or themes of contributions to the space and engagement in the space were further explored through open-ended questions asked of both faculty and students. Both faculty and students of the learning space contributed to the space. This is achieved through the collaborative creation of the space and collective creation of the content within the space. One response indicated, “We all create the learning space. The instructor has a strong input in this design, but the students contribute and create the space through each course and provide a thread that weaves through all the courses through our shared work and group projects.” The learning space is comprised of a multitude of portals. One faculty member described this as a web. Portals are how the space is accessed (Gee, 2005). In the case of the distance doctoral program, these portals included Blackboard, wikis, Facebook pages, skype, etc. Contributions to the space in the form of content or generators (Gee, 2005) are, again, created by all involved in the space. As noted in the characteristics of affinity spaces, sometimes this is completed collectively, and sometimes these are individual contributions. It should also be noted that responses often indicated that some of the spaces within the Distance Educational Studies Affinity Space were accessible only to students, not faculty. In addition to contributing to the “physical” aspects of the space, participants also created the culture and environment of the space, explaining it was “social, supportive, welcoming, fun, safe, [and] collaborative.”

One participant articulated a sentiment that was pervasive throughout the research regarding the learning space, saying they “are created to facilitate collaboration,



socialization, and production of educational ideas and materials.” Or, “the learning space is characterized by motivated like-minded people seeking an advancement in their educational careers.” These descriptions aligned with the characteristics and definition of affinity spaces as places where individuals with a shared interest gather to facilitate learning, gain collective intelligence, and produce artifacts related to a joint enterprise (Gee, 2005). Participants in this study noted several reasons they engaged in the space: social interactions/communications, collaboration, sharing resources, questions/clarification, academic and emotional support, and for assignments. With the exception of engaging in the space for assignments, the focus was on connections between the participants in the space. This was not surprising as research supports the notion that in online education, there is a greater need for interaction and communication in order for students to succeed (Rovai et al., 2008). When students were asked to what degree they agreed with the following statement, “Socialization within the space is secondary only to the objective of the learning space,” the mean score of 2.21 disagreed with the statement. However, one student’s comment perfectly articulated this characteristic, “learning is at the core of the learning space, but the ability to socialize and interact is a key contributor to the effectiveness of the learning space.” Another participant described the learning space as “social, constant connections with peers.”

### **Learning Space Participants**

Throughout this research studying the learning space, participants’ emphasis was on the other individuals in the space including their interactions, connections, collaborations, support etc. The space was used to: “share and ask for educational resources, and vent frustrations as well as announce accomplishments [and] we push each

others' thinking by reflecting on our homework assignment readings, our own personal experiences . . . prior knowledge.” Kasl and Yorks discussed learning, stating that “by presenting ideas to others and encountering others’ points of view, learners clarify, expand, and attune their thinking” (2016, p. 4). One participant in the space even told the story of how they would often utilize Skype all day with another individual in the program, regardless of whether or not they were working together. It was left on even when they might temporarily leave or take a nap; the intent was simply for the connection with someone else from the learning space. Of the three cohorts to go through the program, one cohort graduated almost two years earlier and, yet, they still continued relationships and connections, collaborated, and maintained various portals in their affinity space. One student from this cohort described their learning space as “sustainable, even today we still have learning spaces in place long after we all have graduated.” Without the participants and their engagement in the learning space, it would cease to exist.

### **Implications and Future Research**

This study indicated that distance higher education learning spaces are, in fact, a series of interacting affinity spaces leading to effective education. However, this potential for optimal learning is only present when the space accentuates the participants. The participants in the space must contribute to the space and be actively engaged in the space, and there must be diversity within the space. Previous literature differentiated affinity spaces from communities of practice by focusing on the space, rather than the members in the space (Gee, 2005). But, in the Educational Studies distance higher

education program, the participants in the space were an integral element of the affinity space. They were repeatedly described as the ultimate stakeholders within the space.

Due to the limited sample utilized in this study, future research on a variety of distance higher education programs could further investigate the participants in the space and their necessity in distance higher education affinity spaces. In addition, extended exploration of higher education learning spaces could ensure that the characteristics necessary for affinity spaces are present to ensure effective learning. In gaming, there may not be a need to emphasize the participants in an affinity space, but based on this research of distance higher education, one would be remiss to not accentuate the members in the space.

### References

- American Journal of Distance Education. (n.d.). Aims and scope. Retrieved from <http://www.tandfonline.com/action/journalInformation?show=aimsScope&journalCode=hajd20#.Vr9dfvkrLIU>
- Beemt, A. V. D., Akkerman, S., & Simons, R. J. (2011). Considering young people's motives for interactive media use. *Educational Research Review*, 6, 55-66.
- Bommarito, D. (2014). Tending to change: Toward a situated model of affinity spaces. *E-Learning and Digital Media*, 11(4), 406-417.
- Brass, J., & Mecoli, S. (2011). The (failed) case of the Winston Society wikispace: The challenges and opportunities of Web 2.0 and teacher education. *Contemporary Issues in Technology and Teacher Education*, 11(2), 149-166.
- Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3<sup>rd</sup> ed.). Los Angeles: Sage.

- Creswell, J. W. (2014). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4<sup>th</sup> ed.). Upper Saddle River, NJ: Prentice Hall.
- Curwood, J. S. (2013). The Hunger Games: Literature, literacy, and online affinity spaces. *Language Arts*, 90(6), 417-427.
- Dunteman, G. H. (1989). *Principal components analysis*. Newbury Park, STATE: Sage Publications.
- Field, A. (2005). Principal Component Analysis. In A. Field, *Discovering statistics using SPSS* (pp. 619-680). Thousand Oaks: Sage Publications.
- Fields, D. A. (2009, January). What do students gain from a week at science camp? Youth perceptions and the design of an immersive, research-oriented astronomy camp. *International Journal of Science Education*, 31(2), 151-171.
- Flannery, D., & Apps, J. (1987). Characteristics and problems of older returning students. Retrieved from ERIC database. (ED296084)
- Galbraith, M. W. (2004). The teacher of adults. In M. W. Galbraith (Ed.), *Adult learning methods: A guide for effective instruction* (3<sup>rd</sup> ed.) (pp. 3-21). Malabar, FL: Kreiger Publishing Company.
- Gee, J. P. (2005). Semiotic social spaces and affinity spaces: From the age of mythology to today's schools. In D. Barton & K. Tusting (Eds.), *Beyond communities of practice: Language, power and social context* (pp. 214-232). New York: Cambridge University Press.
- Gee, J. P. (2007). *Good video games + good learning: Collected essays on video games, learning and literacy*. New York: Peter Lang Publishing.

- Gee, J. P. (2013). *The anti-education era: Creating smarter students through digital learning*. New York: Palgrave Macmillan.
- Ginsberg, M. B., & Wlodkowski, R. J. (2010). Access and participation. In C. E. Kasworm, A.D. Rose, & J. M. Ross-Gordon (Eds.), *Handbook of adult and continuing education* (2010 ed.) (pp. 25-34). Los Angeles: Sage.
- Greene, J. C., Cracelli, V. J., & Graham, W. F. (1989). Toward a conceptual framework for mixed-method evaluation designs. *Education Evaluation and Policy Analysis*, 11(3), 255-274.
- Henderson, R., & Hirst, E. (2007). Reframing academic literacy: Re-examining a short course for “disadvantaged” tertiary students. *English Teaching: Practice and Critique*, 6(2), 25-38.
- Kasl, E., & Yorks, L. (2016). Do I really know you? Do you really know me? Empathy amid diversity in differing learning contexts. *Adult Education Quarterly*, 66(1), 3-20.
- Lammers, J. C., Curwood, J. S., & Magnifico, A. M. (2012). Toward an affinity space methodology: Considerations for literacy research. *English Teaching: Practice and Critique*, 11(2), 44-58.
- Long, H. B. (2004). Understanding adult learners. In M. W. Galbraith (Ed.), *Adult learning methods: A guide for effective instruction* (3<sup>rd</sup> ed.) (pp. 23-37). Malabar, FL: Kreiger Publishing Company.
- Merriam, S. B. (1998). *Qualitative research and case study applications in education*. San Francisco: Jossey-Bass.

- Merriam, S. B., Cafferella, R. S., & Baumgartner, L. M. (2007). *Learning in adulthood* (3<sup>rd</sup> ed.). San Francisco, CA: Jossey-Bass.
- Remler, D. K., & Van Ryzin, G. G. (2011). *Research methods in practice: Strategies for description and causation*. Los Angeles: Sage.
- Rovai, A. P., Ponton, M. K., & Baker, J. D. (2008). *Distance learning in higher education: A programmatic approach to planning, instruction, evaluation, and accreditation*. New York: Teachers College Press.
- Smith, M. L. (2009). Multiple methodology in education research. In J. L. Green, G. Camilli, & P. B. Elmore (Eds.), *Handbook of complementary methods in education research* (pp. 457-475). New York: Routledge.
- Somenarain, L., Akkaraju, S., & Gharbaran R. (2010). Student perceptions and learning outcomes in asynchronous and synchronous online learning environments in a biology course. *Journal of Online Learning and Teaching*, 6(2), 353-356.
- University of Northern Colorado. (2015). *2015 fall census* [PDF document]. Retrieved from <http://www.unco.edu/iras/PDF's/Fall%202015%20Census%20-%209-17-15.pdf>
- U.S. Department of Education. (2014). *Enrollment in distance education courses, by state: Fall 2012* [PDF document]. Retrieved from <http://nces.ed.gov/pubs2014/2014023.pdf>
- Weimer, M. (2013). *Learner-centered teaching: Five key changes to practice* (2nd ed.). San Francisco: Jossey-Bass.
- Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. Cambridge, U.K.: Cambridge University Press.

Wenger, E. C., & Snyder, W.M. (2000). Communities of practice: The organizational frontier. *Harvard Business Review*, January-February, 139-145.

## **CHAPTER VI**

### **VISUALIZATIONS OF THE DISTANCE HIGHER EDUCATION LEARNING SPACE**

Chapter VI is presented in a format that supports a later submission to a journal focused on visual research. According to the author services of this journal:

[The journal] publishes visually oriented articles in a broad range of areas. The multidisciplinary character of the journal is reflected in its attention to visually based research in sociology, anthropology, cultural and media studies, documentary film and photography, information technology, education, communication studies as well as other fields concerned with image-based study. It is expected that most articles will be accompanied by appropriate visual material; visually led submissions are particularly encouraged. . . . A typical manuscript should be between 5000 and 8000 words. . . shorter or longer submissions may, however, be acceptable. (author services, n.d.)

#### **Abstract**

The purpose of this visually based qualitative study was to explore the distance higher education learning space through visual images that were created or located online by participants that represent the distance learning space. Visual images were created and discovered that represented the distance learning space. Creating visual images in research allows time for reflection and often insightful dialogue regarding the image. The creation of these images was also an opportunity to visually represent a non-tangible space. Corresponding photo self-elicitation or photo-feedback and photo-production was analyzed in conjunction with the images to determine how the distance learning space is defined and what comprises the space. Images hold different meanings for different individuals, and the elicitation method allows these connotations to be understood by the researcher. Participants were asked to explain their images, including: (a) why they



created the image, (b) why they chose to include each of the elements present in the image, (c) what they chose not to include in the image, and (d) why they chose to exclude these elements. Thirteen images were collected from doctoral students in a distance educational studies program at a teaching intensive university in the Rocky Mountain region. Through coding of the data, five themes emerged as necessary to the distance learning space: (a) the physical space in which learning occurs, (b) support systems, (c) goals or accomplishments, (d) community, and (e) technology and tools. Findings from this study may provide foundational characteristics for distance educators in creating effective distance learning spaces and facilitating learning in the distance learning environment.

### **Introduction to Visualizations of the Distance Higher Education Learning Space**

When you visualize a classroom, what do you picture? Possibly, you think of a square room with rows of desks and a teacher at the front of the room. Or, maybe, there are tables in a circle, or computers throughout the room. But, what do you think of when you visualize the distance classroom? It can no longer be contained within four walls, and the teacher is no longer in the same physical space as his or her students. Yet, he or she is still expected to manage the classroom and facilitate the learning experience. This study explored what the virtual classroom encompasses and how we create the most optimal learning environment conducive to the success of a growing online student population (U.S. Department of Education, 2014). The distance learning space is not tangible, but visualizations of the space offer the opportunity to illustrate mental images of the spaces' users in a visible form and to interpret these images (Visualization, 2015)

In order to supervise the space and educate distance learners, we must first determine what this online classroom includes and how students are utilizing the space. Professional development in online facilitation and content development, within a learning management system, is offered (Blackboard, n.d.), but what preparation is needed if the primary education in distance learning is occurring outside of the formal learning management system, as the data from this study indicated? Analysis of the visual and text data from this study found that the primary learning takes place in student-created spaces beyond the LMS, which indicates the online learning space is not contained within a product maintained by the institution. It is then likely not being created or designed by educators as the most optimal learning environment. Distance education is forcing educators to reconsider how information is delivered and how to facilitate the distance learning process (Rossing, 2012).

### **Research Questions**

- Q1** What comprises the learning space in distance higher education?
- Q2** How do graduate distance higher education students define the learning space?

### **The Study**

This visually based research was part of a larger embedded mixed methods study with a qualitative focus. The researcher surveyed participants in a distance educational studies doctoral program at a doctoral-level research university with a teaching emphasis in the Rocky Mountain Region regarding the distance learning space. Participants were asked to explain the learning space, what it included, and who were the stakeholders and describe its creation. Finally, images were created or found online that students felt represented their distance learning space.

The intent of the research was to thoroughly explore and define distance learning classrooms in higher education. Although 22 students participated in the study, answering open- and closed-ended questions regarding the distance classroom and their learning experience in the virtual space, only 13 images were shared by participants representing the distance learning space.

### **Learning Space**

There are concerns that race, class, gender, and disability are often at the forefront in a traditional education classroom (Gee, 2005). However, in distance education, social equity is more easily achieved; age, race, gender, social economic status, and disability are no longer a focus of this environment (Rovai, Ponton, & Baker, 2008). The distance classroom setting focuses on the educational learning space that is often located in multiple places (Lammers, Curwood, & Magnifico, 2012). Learning management systems (in the case of this study, Blackboard) typically house the course and function as the formal learning environment which includes potential for chat rooms, discussion boards, assignment submission, and available resources (Blackboard, n.d.). However, similar to education classroom spaces that develop in external areas, distance learning spaces also connect to other related spaces so that knowledge from the outside can transform the space (Gee, 2013). Additional spaces are often created for collaboration between participants (Gee, 2005). Learners often “meet” on social media sites, Google tools, interactive presentation spaces, Wikis, and others to collaborate, share resources, and have discussions. With the growth in technology, this list continues to expand.

### **Visual Methodologies**

Banks defined data as “the visual images and other things that are identified, created, or reified by the processes of social research into objects that can be manipulated, tabulated, compared one against another and so forth, regardless of their ontological status” (2007, p. 12). Visual materials in research primarily consist of photographs, but any image (e.g., drawings, paintings, collages, graffiti, diagrams, cartoons, map, and videos) have potential for use as research data (Harper, 2002; Wagner, 2006).

Creating visual images in research allows time for reflection and often insightful dialogue regarding the image (Rose, 2007). Often the inclusion of visual images creates a new perspective or enlightened understanding of a situation (Harper, 2002). “Images evoke deeper elements of human consciousness . . . exchanges based on words alone utilize less of the brain’s capacity than do exchanges in which the brain is processing images as well as words” (Harper, 2002, p. 13). Visual images can be used to stimulate memory or recover a precise fact (Collier, 1957). According to Harper, the inclusion of visual methods in research can add validity and reliability to word-based research. Images are “unique sources of evidence” (Rose, 2007, p. 238). The information contained in a single image could take pages of writing to explain (Rose, 2007).

Three categories of visual materials exist: (a) pre-existing, (b) materials created by the researcher, and (c) collaborative visual materials (Banks, 2007). All of these visual materials may be incorporated into research and are comprised of any photograph, video, or any other static or moving visual image. The images utilized in this research were created or ascertained by the study participants. Visual images can be utilized for

documentation, collecting, or analyzing information or for use in interviews or surveys (Pink, 2007). The images included in this article were one component of a survey. The images represent the distance learning space for the participants. One strand of the visual methodological technique is a study of images in which the participants have a connection to the visual materials (Banks, 2007). In a study of images, the visuals utilized in the research are produced and/or consumed by the participants (Banks, 2007).

### **Setting and Participants**

Participants in the study included students from all three cohorts of an educational studies EdD program at a teaching intensive university in the Rocky Mountain Region. The online program commenced in 2010 and has initiated three cohorts at varying stages in the doctoral process. One of the three cohorts completed their program in 2014. The other two cohorts were still taking part in the program at the time of the study. To date, the program has enrolled 39 students, 22 of which chose to participate in this research. The distance program is offered online for working adults and full-time graduate students. In 2015, the program was ranked 13<sup>th</sup> for Best Online Education Programs by *U.S. News and World Report*. The Fall 2015 census indicated that 40% of the university's graduate students were enrolled in at least one online course (University of Northern Colorado, 2015).

### **Data Collection**

Collaborative visual materials were one element of this research. The survey concluded with a request for students to produce a visual image representing the learning space of their distance educational studies program. The creation of a visual image depicting the distance learning space provided an opportunity to further explore the

virtual classroom and elicited new and additional information from the students.

Participants in the research were instructed that their visual images could be in the form of a photograph, drawing, collage, digital image, video clip, painting, graffiti, diagram, cartoon, map, or any other visual image they thought represented their learning space.

Photo self-elicitation or photo-feedback, two terms found in the literature referring to the same visual research method, is the process in which participants self-reflect on visual images (Harper, 2002; Rose, 2007). This process was incorporated into the study of the distance learning space. In addition, the photo production element of visual research was included as participants were asked to explain their image, including: (a) why they created the image, (b) why they chose to include each of the elements present in the image, (c) what other elements were excluded from the image, and (d) why they chose not to include those elements.

Photo self-elicitation or photo-feedback along with photo-production were employed to yield insightful data and to further support the text-based research data. Photo-feedback or photo self-elicitation research involves image producers analyzing their visual image and providing written comments regarding the image (Harper, 2002). Images hold different meanings for different individuals, and the elicitation method allows these connotations to be understood by the researcher. Eliciting information about images for a research study not only highlights the image and its meaning, but also the justification for producing that image and in that way (Radley, 2010). According to Radley (2010), photo-production incorporates what individuals choose to include or exclude in the picture, how the pictures are shown, and how the pictures are captured.

### **Data Analysis**

For the purposes of this research, photo self-elicitation or photo-feedback along with photo production were utilized. Hence, the images and the corresponding elicitation responses were analyzed and coded. Coding of the participants' images produced or chosen and the subsequent photo self-elicitation or photo-feedback was completed for the emergence of visual and written themes. In addition, code counts of the visual representations were data.

### **Findings and Discussion**

Participants produced visual representations of the learning space that included photographs, digital images, drawings, and collages. Analysis of these visual images and corresponding photo-feedback or photo self-elicitation and photo production developed the emergence of five themes: (a) physical learning space, (b) support system, (c) goals or accomplishments, (d) community, and (d) technology and tools. Several of the images and subsequent written explanations included multiple themes within one image.

#### **Physical Space**

The most straightforward representations of the learning space included images that were of the physical space students inhabited while participating in their courses. Because the program was primarily online, the physical space was very individualized. All learners participated from separate tangible locations. Although the students did “meet” in virtual locations synchronously and asynchronously, they did not gather in one physical classroom.

The physical learning spaces included offices, kitchens, and living areas within the students' homes. These spaces were chosen based on the objectives of the learning.

Sometimes quiet and isolation were necessary, so work for the program was completed in an office or other place where the students would not be disturbed. This need for isolation was demonstrated in the response, “my office computer in my basement . . . was utilized when I needed a quieter space.” Other times, a more communal space was chosen, as one of the benefits of a distance program is the prospect of participation in school while still balancing the other roles often necessary for an adult student. One participant of the study remarked:

100% of my dissertation and about 90% of the work I did in my program was accomplished at the kitchen table. While doing my work at the table, I could still interact with my wife and family. I grew up on a farm, and the kitchen table is a natural place for me to not only work, but operates as a center of household activity.

This interactive physical learning space can be seen below in Figure 4.



*Figure 4.* Kitchen table as learning space.

Another photograph representing the physical learning space included a cupboard within a former student’s home (Figure 5). This cupboard contained all of the materials



the participant felt was necessary to access on a daily basis while participating in the doctoral program. However, this participant was a member of the first cohort to go through the program, so actually received their EdD more than a year before the study. Photo self-elicitation/photo-feedback on this image included that “even though I graduated well over a year ago, you can see the materials are still in the case. Our learning spaces have lasting power in our lives, if they’re truly comfortable or convenient.” This sentiment highlighted one of the progressive and appealing aspects of participation in an online or other distance educational program. Distance education takes effort, but it is flexible and can be incorporated into adult’s lives with lasting effects.



*Figure 5.* Cupboard.

Additional images submitted to the researcher depicting physical learning spaces included offices, desks, and bookshelves. Often, a plethora of books, journals, computers, office supplies, and other technology tools were included in those learning

space representations. One participant's learning space was a bookshelf located in the office area that "was a repository for items that I didn't more immediately need. I also use it as a storage space for articles and books."

Although the majority of physical spaces pictured were individual learning spaces students occupied while completing their studies, there was one image illustrating a physical space that was universal to all participants in the cohort. This image shared by one participant, representing a physical learning space that was common to all students in the doctoral program. The image seen in Figure 6 is a frame from the movie *Summer School*. All students in the distance doctoral program had the opportunity to meet face to face in a summer session held on campus. The image included a teacher at the front of the classroom and students working individually and in collaboration. This engaging face-to-face summer sequence provided the opportunity to "meet, network, and share ideas . . .this feels representative of my experience throughout most of the program." The face-to-face summer session enabled students to meet faculty and one another and provided one more opportunity to engage with each other.



*Figure 6.* Summer school.

### **Support System**

Another theme to emerge while analyzing the visual images and explanations was the learning space as a support system. With the exception of two participants in the visual segment of the research, all included this element in their submissions. Data revealed the doctoral experience is unique and has distinct challenges that require a strong support system. According to participants, struggles are a familiar sentiment for participants in a doctoral program, which explains the emergence of the support system theme as a major element in the learning space. One participant remarked that the clutter within an image “appealed to me because I found my experience in this blended learning space to be chaotic at times.” A drawing created of the space included words alluding to the complexity of the doctoral process such as hard work, venting, and challenge. Subsequent text captured the support system present to combat these difficulties: cheerleading, friendship, help, reassuring, safe, collegiality, admiration, and proud. An

image of interlocking hands unmistakably illustrated the necessity for a strong support system (Figure 7). Photo self-elicitation of Figure 6 included the comments “we’re all in this together, will help each other no matter what, and will support our celebrations and struggles.”



*Figure 7.* Interlocking hands.

One participant noted, “I am not doing it alone. I have the support and encouragement from cohort members and faculty to keep plugging away.” Similar to the participant reflection for Figure 6, this participant quote alluded to the difficulty of participation in a doctoral program, but focused on the support system within the program that assisted in their success.

In spite of the distance in physical space between students in the program, the sentiment was clear that members in the cohort (both faculty and students) were encouraging of one another. One digital image included several people linked by their individual interests and included various tools for connecting with each other. The

participant stated that they “selected this image first because it shows the people involved in the learning space. The other members of my cohort were an essential component in my ability to successfully navigate and ultimately complete the program.” It was noted by one participant that the members of the cohort each had varying areas of expertise, and they would go to various members of the cohort for support based on what they needed assistance with. “If I want to know more about IB [International Baccalaureate], I would contact one particular member. Math? There’s another. College life, another and, likewise, for special education.” The support system within the program led to individual accomplishments and goals and collective successes.

### **Goals or Accomplishments**

Participants in this research were from the three cohorts that engaged in the educational studies program in an online environment at the time of this research. Two of these cohorts were enrolled in the program at the time of the study, while most of the participants from the first cohort had completed their doctorate. As a result, some of the learning space images included goals students hoped to attain through participation in the program, while other images included accomplishments that students had already attained.

One participant, a former student of the program, produced a photograph that included their dissertation in the image. They stated that they had not felt the need to put the completed accomplishment of the program away. It continues to occupy an accessible space in the student’s home. The dissertation was a culmination of the program and a successful accomplishment achieved through the learning space. Another participant, a current student, submitted an image that contrasted this completed success,

as their visual of the learning space was of gears. The corresponding photo self-elicitation or photo-feedback remarked that “as of now, the pieces have not been assembled.” The student’s aspiration to put all the pieces together had not yet been accomplished as a result of participation in the learning space. They remarked that, eventually, participants and various components of the learning space would come together in order to achieve the desired outcome.

One participant presented a picture postcard of the Winchester Mystery House to represent their learning space. The Winchester Mystery House is located in San Jose, California, and was built by the wealthy Sarah Winchester who died in 1922 (Winchester Mystery House, n.d.). Sarah Winchester was fanatical about building the property and continued to add onto this maze of a house for 38 years until her death (Winchester Mystery House, n.d.). The participant remarked that “I have been obsessed with learning all that I can in this program. Like Mrs. Winchester, I feel that I must keep on building upon my knowledge.” The participant indicated that through participation in the program, they could achieve this goal of increasing their knowledge and their continued pursuit of lifelong learning.

Another image that focused on goals and accomplishments came from the Pennsylvania Game Commission live-streaming cam of a bald eagle nest near Codorus State Park at Hanover, York County. Pictured in the image was a bald eagle in a nest with eaglets. A mountain can be viewed in the background. The theme of goals/achievements is suggested in the image and expounded upon in the participant’s photo self-elicitation/photo-feedback. According to the participant, the mountain that can be seen in the setting “symbolizes the lofty heights we are striving to attain.” Further

exploration of the image elicited additional information regarding the online doctoral program. The “learning program space often seems lofty and/or unattainable, and yet, with the professors (eagles) and cohort members (chicks), it is a place of safety where we will one day be able to learn to fly.” Not only did the image identify goals that the participant was seeking to attain and ambitions in the “learn to fly” quote, it also alluded to the sense of community found in the learning space. The participant recognized the significance of their peers (chicks) in achieving their goals

### **Community**

The community in the distance program included both eagles and chicks, or professors and students, in the cohort. Other images also included advisors and dissertation chairs as a part of the community found within the learning space. This theme of community was quite prevalent in the research data collected. One participant created a collage of images including students, professors, and advisors as members in the community. These members collaborated, worked together on assignments and projects, networked, and shared ideas.

Another participant who included students, professors, advisors, and dissertation chairs completed a drawing illustrating the learning space as a community of interacting entities. The diagram, seen in Figure 8, is composed of circles that each “represent a different group that played an integral role the in the program.”

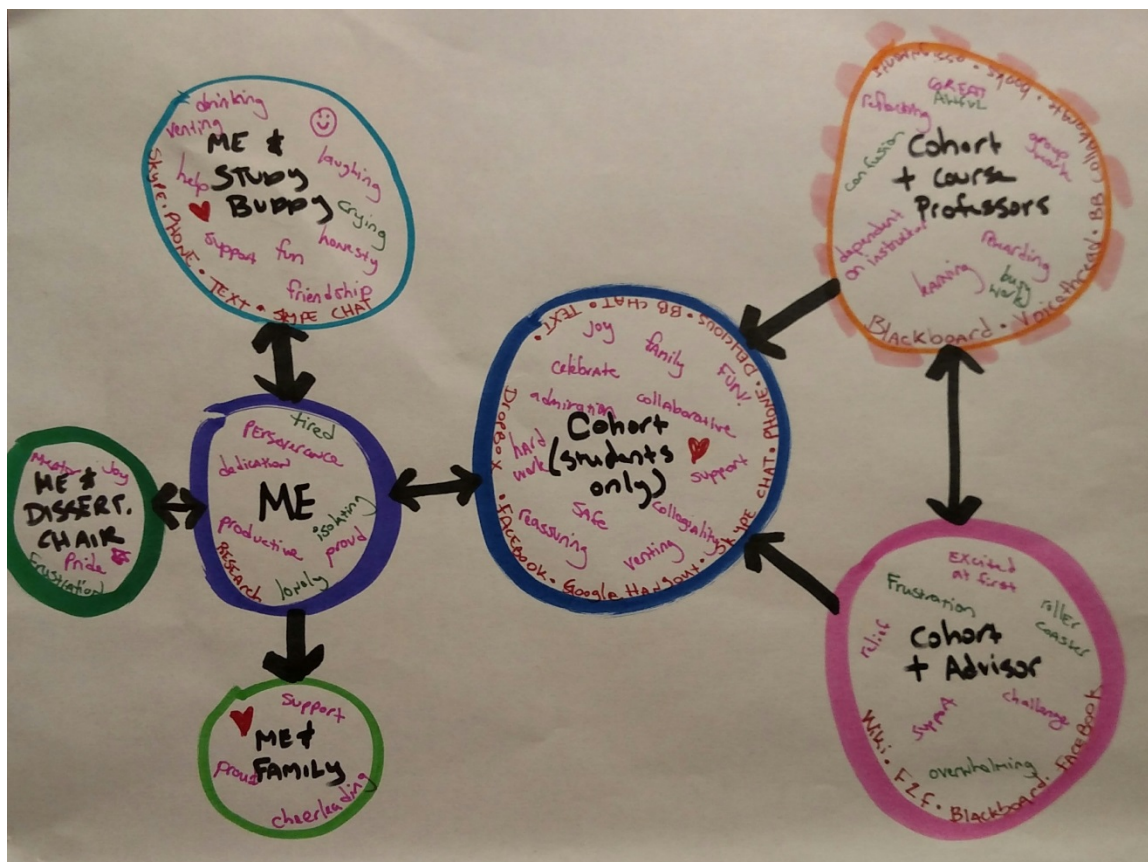


Figure 8. Learning space map.

The participant, a former student in the program, indicated that the four circles found on the left side of the image represent their personal journey in the program. But, it is clear in the image that they were just one entity in a much larger community. Several other individuals or groups were prevalent members in the community represented in this image depicting the distance education learning space. In this drawing, family is represented as an addition to the community. The arrows in the picture represent the direction of communication found between the different groups. The pink and green words contained within the circles are “why and how we communicated and also the feelings I associate with the group during my four years as a student.” It should be noted that the words written in pink are positive, while the green words are negative. The



positive terms outnumbered the negative one, further supporting the presence of community in the learning space. The drawing also includes tools used for communication in the learning space around the perimeter of the circles.

Another participant also used a map graphic containing circles and lines connecting them. The image was chosen “because I feel like we, in the cohort, are highly connected, despite the fact that we’re all over the world.” It was evident that community had been established, in spite of the members of the community being physically separated. Contained within each of the circles was a faceless person; it was explained that “we rarely see each other’s faces, except the times we ‘see’ each other on Facebook. I’m not sure all of us remember what we all look like! For that reason, I chose an image where our faces are sort of blank.” In spite of the lack of knowledge regarding each other’s physical appearances, it was noted that they had deep connections and knew a lot about each other. Several of the images submitted for this study placed an emphasis on the individuals in the space and their connection.

This strong sense of community and connection in the learning space was reiterated by another participant who stated that “we lost four of our original members. I am guessing that they may have felt alone in this quest. I do not.” And, again, “we are all connected through this program.” One participant’s photo self-elicitation emphasized the community in the learning space as they discussed the individuals within the community and what each participant brought to the learning space. Elements within the learning space were also mentioned as well as the process of participants bringing these components to the learning space to achieve a collective outcome as a community.

## **Technology and Tools**

Close inspection of the perimeter of each circle in Figure 8 highlights the technology and tools used to communicate with each other in the learning space. This list includes: Blackboard, books, chat, Collaborate, Delicious, Dropbox, Facebook, face to face, Google Hangout, phone, Skype, text, VoiceThread, and Wikis. The image connecting faceless circles described above also signified technology and tools as necessary elements in the connection of participants in the space. Another image submitted by a participant in the study was also constructed that showed the linking of isolated individuals by technology. These links were depicted as connection tools and included images of computers, emails, face-to-face interaction, papers, pencils, phones, research, and text messages.

The images of the distance learning space collected in this study that utilized tools to collaborate, interact, dialogue, and work in tandem while being physically separated signified the importance of technology in the distance learning space. One participant commented on the need for two computers in the distance learning space for some of their engagements in the distance classroom, “this learning space was utilized when I needed . . . two computers between the desktop and my laptop. Much of the time we were video conferencing in Blackboard.” The use of video conferencing in the distance space was just one of the tools used for collaboration and to connect with other members in the space. One participant acknowledged the importance of tools such as Facebook and discussion boards as avenues by which to feel connected to their peers. Another participant reported engaging with their peers utilizing one tool, while also participating in a synchronous course lesson through another technology. Similar sentiments were expressed in several of the visual images and corresponding image explanations.

However, the tools accessed as part of the learning space vary greatly. One image offered of the distance learning space was a photograph of the physical learning space for a participant that focused on the tools necessary to participate in an online program. This depiction can be viewed in Figure 9.



*Figure 9.* Learning space tools.

The tools represented in this image include both technology, in the form of a laptop, and more traditional tools, such as paper, sticky notes, pens, and paperclips. In a world focused on technology and a distance program delivered through the Internet, it's easy to forget the necessity of more conventional and established educational tools.

Although technology has the capability to enhance the learning space and make distance education a possibility, technology tools are not always the most conducive for learning. One participant's explanation broadened the understanding of tool: "I like the contrast of the pencils and technology tools because the program was a juggling act between traditional coursework and methods and that which was new and innovative." This

statement is a reminder of the importance of all tools in the distance learning space, not just the latest and greatest technology that might be available.

### **Conclusion**

The distance learning space is new territory, and determining what makes up this space is necessary when developing distance education and shaping the distance learning environment. Although many of the traditional elements found in a face-to-face learning space are also essential in the online environment, the lack of some conventional elements such as physical proximity, nonverbal communication, and tangible collaboration require a better understanding of how to compensate for their absences.

This study has established the essential components of a distance learning space: the physical space in which learning occurs, the support systems, the goals or accomplishments, the community, and the technology and tools. The necessity of utilizing tools and technology to comprise the distance learning space was supported by this research. These instruments assist in communication, collaboration, and production within the space. The achievement of goals is also substantial in the creation of a learning space. Ultimately, members in the space participated for a purpose and in order to accomplish an objective. The significance of the participants in the space cannot be discounted. The learners within the space ultimately created a community. The learning space map visual above was centered around the students in the cohort. The explanation for this stated that “I started this image with the cohort (students only) in the center because, to me, those were the central players in the program.” Without participants in the distance space, there would be no community and, consequently, no support system in the learning space. Finally, irrespective of the fact that distance students do not typically

meet in a common physical space, it does not negate that participants in the learning space still partake in their education while occupying a real place. This individual physical space is considered to be a portion of the distance learning space for students.

Educators in the distance environment need to be aware of the five major components of the distance space realized through analysis of the visual images and corresponding text in this study. When creating distance learning spaces, incorporating technology, both traditional and modern, needs to be considered. The most beneficial tools for course and program objectives should be implemented in the design. Also, the inclusion of achievable goals should be included. This allows for students to pursue something and then to celebrate when these targets are attained. Along the way, participants in the distance space should be able to rely on their peers within the space for support. This community can be created and encouraged by instructors by focusing on the students, their experiences, and their individual areas of expertise. Finally, educators need to assist online students in creating a physical learning space that will aid them in their pursuits and meet their individual demands.

The creation of visual images by students in the distance educational studies doctoral program and corresponding photo self-elicitation or photo-feedback and photo-production allowed the researcher to determine what defines the distance learning space and of what it is comprised. The creation of these images was also an opportunity to visually represent a non-tangible learning space.

## References

- Banks, M. (2007). *Using visual data in qualitative research*. Los Angeles: Sage.
- Blackboard. (n.d.). *Training center*. Retrieved from <https://trainingcenter.blackboard.com/Public/Course/Browse>
- Collier, J. (1957). Photography in anthropology: A report on two experiments. *American Anthropologist, New Series*, 59(5), 843-859.
- Gee, J. P. (2005). Semiotic social spaces and affinity spaces: From the age of mythology to today's schools. In D. Barton & K. Tusting (Eds.), *Beyond communities of practice: Language, power and social context* (pp. 214-232). New York: Cambridge University Press.
- Gee, J. P. (2013). *The anti-education era: Creating smarter students through digital learning*. New York: Palgrave Macmillan.
- Harper, D. (2002). Talking about pictures: case for photo elicitation. *Visual Studies*, 17(1), 13-26.A
- Lammers, J. C., Curwood, J. S., & Magnifico, A. M. (2012). Toward an affinity space methodology: Considerations for literacy research. *English Teaching: Practice and Critique*, 11(2), 44-58.
- Pink, S. (2007). *Doing visual ethnography* (2<sup>nd</sup> ed.). Thousand Oaks, CA: Sage.
- Radley, A. (2010). What people do with pictures. *Visual Studies*, 25(3), 268-279.
- Rose, G. (2007). Making photographs as part of a research project: Photo-elicitation, photo-documentation and other uses of photos. In G. Rose, *Visual methodologies: An introduction to the interpretation of visual materials* (2<sup>nd</sup> ed.) (pp. 237-256). Thousand Oaks, CA: Sage.

- Rossing, J. P. (2012). Mobile technology and liberal education. *Liberal Education*, Winter, 68-72.
- Rovai, A. P., Ponton, M. K., & Baker, J. D. (2008). *Distance learning in higher education: A programmatic approach to planning, instruction, evaluation, and accreditation*. New York: Teachers College Press.
- University of Northern Colorado. (2015). *2015 fall census* [PDF document]. Retrieved from <http://www.unco.edu/iras/PDF's/Fall%202015%20Census%20-%209-17-15.pdf>
- U.S. Department of Education. (2014). *Enrollment in distance education courses, by state: Fall 2012* [PDF document]. Retrieved from: <http://nces.ed.gov/pubs2014/2014023.pdf>
- U.S. News and World Report. (2015). *Best online education programs*. Retrieved from <http://www.usnews.com/education/online-education/university-of-northern-colorado-OEDU0846/education>
- Visualization. (2015). In *Merriam-Webster's dictionary*. Retrieved from <http://www.merriam-webster.com/dictionary/visualization>
- Visual Studies. (n.d.). Author services. Retrieved from <http://www.tandfonline.com/action/authorSubmission?journalCode=rvst20&page=instructions#.VtPPXvkrLIU>
- Wagner, J. (2006). Visible materials, visualized theory, and images of social research. *Visual Studies*, 21(1), 55-69.
- Winchester Mystery House. (n.d.). *Sarah Winchester*. Retrieved from <http://www.winchestermysteryhouse.com/sarahwinchester.cfm>

## **CHAPTER VII**

### **CONCLUSIONS**

As my Doctoral program recedes and I culminate my teaching as a graduate teaching assistant instructor of record, I will embark upon my next journey, the commencement of my career as a professor of adult education in higher education. This profession will require me to continue educating college students, hopefully in the distance environment, and will likely include research for practitioners designed to improve teaching in online education.

I have been fortunate to teach online classes in higher education the last few years and have incorporated many of the elements that my research found to be necessary in creating a successful distance student experience. My students are frequently new to distance education and this regularly means they are unfamiliar with the expectations, challenges, and benefits of the distance environment. I try to orient them by incorporating elements of this research into a new format and create a structure that allows them to succeed. I incorporate technology, encourage community, assure inclusion and diversity, and emphasize a reliance on their peers as resources. My goal is for them to have a positive learning-filled experience in distance education.

My research agenda aimed to support adult learners in their educational and occupational endeavors by creating optimal learning environments and facilitating successful student experiences. Within this overarching umbrella, I had three foci: (a)



distance education, (b) technology-enhanced teaching and learning, and (c) learning communities within the educational environment. This study allowed me the occasion to coalesce these three concentrations and ultimately improve my practice.

The opportunity to study the distance learning space in relation to affinity spaces allowed me to generate empirical evidence regarding how to design distance higher education as interacting affinity spaces, ensuring effectual spaces for students learning in the distance environment. Gee's assertions that "schools and colleges could have been and should be in the future a network of well-designed interacting affinity spaces devoted to synchronized intelligence" (2013, pp. 177-178) have provided a model for aligning distance higher education learning spaces and affinity spaces and, ultimately, students' personal and academic lives.

Early research on the distance learning environment often focused on comparing distance education to traditional face-to-face education, but more recent literature has illuminated distance learning as a distinct entity worthy of its own research. This study has expanded on distance education research by exploring the graduate distance higher education learning space including: defining the space, determining who creates and contributes to the space, assessing how the space is utilized, and, finally, establishing if the space constitutes an affinity space.

The three articles comprising Chapters IV through VII in this dissertation, *The Online Classroom: A Thorough Depiction of Distance Learning Spaces, Affinity Spaces in Higher Education*, and *Visualizations of the Distance Higher Education Learning Space*, aspired to thoroughly investigate the learning space in a distance doctoral program offered at a doctoral-level research university with a teaching emphasis in the Rocky

Mountain Region. Additionally, the articles sought to illuminate how educators in the distance environment can create effective distance learning spaces and facilitate successful experiences in the online environment. This provides potential to reverse the existing trend of greater withdrawal from distance education courses (Capra, 2011). This study lent itself to three distinct lines of research.

Chapter IV of this dissertation, *The Online Classroom: A Thorough Depiction of Distance Learning Spaces*, endeavored to understand the research question regarding what comprises the learning space in distance higher education and the sub-questions related to how graduate distance higher education students define the learning space, who contributes to the learning space in a distance higher education program, and how graduate higher education learners utilize virtual spaces in distance education. The article provided descriptions of the distance learning space based on feedback from the learners and instructors in the space. The article was written for practitioners of adult distance education and provides implications for educators in the online environment.

*Affinity Spaces in Higher Education* attempted to determine if the distance learning space of an educational studies doctoral program aligned with the characteristics Gee (2013) described as necessary elements of affinity spaces. The question, what characteristics of affinity spaces, as defined by Gee, are exhibited in distance higher education learning spaces? and the sub-questions, who contributes to the learning space in a distance higher education program? and how do graduate higher education learners utilize virtual spaces in distance education? were satisfied in this article. The collection of data from student participants on the 18 affinity space characteristics confirmed that

the distance space studied in this research is, in fact, an affinity space. The article also stressed the importance of the participants within the space.

The final article, *Visualizations of the Distance Higher Education Learning Space*, incorporated the use of visual methodologies to further explore the distance learning space. The images collected and corresponding text fulfilled responses to the questions regarding what comprises the learning space in distance higher education and how do graduate distance higher education students define the learning space. The creation of these images was an opportunity to visually represent a non-tangible space and allow additional time for student participants to reflect on the image, ultimately leading to insightful dialogue regarding the distance learning space.

### **Implications**

Findings from this research led to numerous implications for distance education and the distance learning environment. Specifically, these implications refer to creation of the learning space.

Affinity spaces are effective learning environments, and many of their fundamental merits are characteristics naturally established with adult learners participating in distance education. Adult education includes a diverse population of individuals with unique experiences and areas of expertise. Allowing these students to co-create and contribute to the learning space along with the instructor lends itself to an ideal environment conducive to student learning. In turn, this practice also establishes the importance of the participants to the learning space.

The significance of the participants in the distance space is due to the importance of peer interaction, support, and collaboration within an effectual distance learning space.

Teachers of adult distance education must ensure that they are creating spaces that are conducive to student engagement and are transitioning from an instructor to a facilitator. Participants in distance learning realized the significance of their peers in their success; thus, distance spaces must be created to support this collaborative venture. This structure requires greater involvement by all participants with a lesser reliance on the instructor to transform the distance learning space.

Ownership of the learning space is a collaborative endeavor by all participants involved. Not only do students need to create their personal learning space, the physical space from which they participate, but they also need to see that they are responsible for creation of the online learning space. Faculty will likely design a space within the Learning Management System, but all spaces outside of this will be generated through a collective effort by all individuals participating in the distance space.

This distance learning space needs to reflect the technology and tools most conducive to student gains. This will likely incorporate the many innovative tools utilized by individuals in their lives outside academia, but it should also integrate the established tools that have long been essential to academics and higher education.

### **Future Research**

Many opportunities for future research have been identified through the completion of this study. This study explored the distance learning space of a doctoral program that utilized a cohort structure. Cohorts are a unique format, so it is crucial to also study the distance learning space when a cohort is not utilized. Without the opportunity to participate with the same individuals over the course of four years, is the function of the participant within the learning space still as momentous?

Doctoral students are also a very unique faction within graduate school. Their expertise, experience, and tenure in academia are likely more substantial than other graduate and higher education students. Studying the distance learning space with a larger and more diverse group of college students would be beneficial in better understanding the distance higher education learning space.

Finally, researching the Learning Management System course shells would likely garner additional information as to how this space is being designed and utilized in distance higher education. Many of the elements found in the ancillary spaces that comprised the distance learning space in this study are available within Blackboard, and yet, participants are going outside of the formal system to create these spaces. Also, some of the tools included as part of the distance learning space for these educational studies participants can actually be embedded directly within the Learning Management System, but this is not being done. Further study of the course shells might enlighten educators as to why all the resources incorporated in Blackboard are not being developed.

Completing this dissertation will affect my teaching online, how I create the distance classroom, and the significance I ascribe to the learners participating in the distance space. Employing an affinity space lens while also focusing on the human element in distance education and the adult learning knowledge base has exposed the potential for aligning distance spaces with individual learners' lives outside of academia to create effective learning spaces. These findings may be beneficial to educators teaching in this contemporary venue. Distance learning is a prosperous learning format, opening the world of education to a more diverse and extensive student population.

## REFERENCES

- Alfred, M. (2016, February 2). Re: CPAE call for manuscripts [CPAE archives]. Retrieved from <http://lists.wku.edu/mailman/private/cpae/2016-February/001866.html>
- American Journal of Distance Education. (n.d.). *Aims and scope*. Retrieved from <http://www.tandfonline.com/action/journalInformation?show=aimsScope&journalCode=hajd20#.Vr9dfvkrLIU>
- ASU Online. (n.d.). *Same faculty and degree*. Retrieved from <http://asuonline.asu.edu/>
- Banks, M. (2007). *Using visual data in qualitative research*. Los Angeles: Sage.
- Beemt, A. V. D., Akkerman, S., & Simons, R. J. (2011). Considering young people's motives for interactive media use. *Educational Research Review*, 6, 55-66.
- Bennett, S. (2006). First questions for designing higher education learning spaces. *The Journal of Academic Librarianship*, 33(1), 14-26.
- Bierma, L. L. (2010). Professional identity. In C. E. Kasworm, A. D. Rose, & J. M. Ross-Gordon (Eds.), *Handbook of adult and continuing education* (2010 ed.) (pp. 135-146). Los Angeles: Sage.
- Blackboard. (n.d.). *Training center*. Retrieved from <https://trainingcenter.blackboard.com/Public/Course/Browse>

- Block, A., Udermann, B., Felix, M., Reineke, D., & Murray, S. R. (2008). Achievement and satisfaction in an online versus a traditional health and wellness course. *Journal of Online Learning and Teaching*, 4(1), 57-66.
- Bommarito, D. (2014). Tending to change: Toward a situated model of affinity spaces. *E-learning and Digital Media*, 11(4), 406-417.
- Brass, J., & Mecoli, S. (2011). The (failed) case of the Winston Society wikispace: The challenges and opportunities of Web 2.0 and teacher education. *Contemporary Issues in Technology and Teacher Education*, 11(2), 149-166.
- Capra, T. (2011). Online education: Promise and problems. *Journal of Online Learning and Teaching*, 7(2), 288-293.
- Chaney, D., Chaney, E., & Eddy, J. (2010). The context of distance learning programs in higher education: 5 enabling assumptions. *Online Journal of Distance Learning Administration*, 13(4).
- Chernish, W. N., DeFranco, A. L., Dooley, K. E., & Lindner, J. R. (2005). Does it Matter? Analyzing the results of three different learning methods. *The Quarterly Review of Distance Education*, 6(2), 87-95.
- Chiero, R., & Beare, P. (2010). An evaluation of online versus campus-based teacher preparation programs. *Journal of Online Learning and Teaching*, 6(4), 780-790.
- Clark, R. C., & Mayer, R. E. (2011). *e-learning and the science of instruction*. San Francisco: Pfeiffer.
- Collier, J. (1957). Photography in anthropology: A report on two experiments. *American Anthropologist, New Series*, 59(5), 843-859.

- Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4<sup>th</sup> ed.). Upper Saddle River, NJ: Prentice Hall.
- Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3<sup>rd</sup> ed.). Los Angeles: Sage.
- Crotty, M. (1998). *The foundations of social research: Meaning and perspective in the research process*. Thousand Oaks, CA: Sage.
- CSU Online. (n.d.). *Our division*. Retrieved from <http://www.online.colostate.edu/about/>
- Curwood, J. S. (2013). The Hunger Games: Literature, literacy, and online affinity spaces. *Language Arts*, 90(6), 417-427.
- Duncan, S. C. (2010). Gamers as designers: A framework for investigating design in gaming affinity spaces. *E-Learning and Digital Media*, 7(1), 21-34.
- Dunteman, G. H. (1989). *Principal components analysis*. Newbury Park, STATE: Sage Publications.
- Fahlman, D. (2011). Stories from the first cohort in doctor of education in distance education. *Journal of Distance Education*, 25(1), 1-8.
- Field, A. (2005). Principal Component Analysis. In A. Field, *Discovering statistics using SPSS* (pp. 619-680). Thousand Oaks: Sage Publications.
- Fields, D. A. (2009, January). What do students gain from a week at science camp? Youth perceptions and the design of an immersive, research-oriented astronomy camp. *International Journal of Science Education*, 31(2), 151-171.
- Flannery, D., & Apps, J. (1987). *Characteristics and problems of older returning students*. Retrieved from ERIC database. (ED296084)



- Galbraith, M. W. (2004). The teacher of adults. In M. W. Galbraith (Ed.), *Adult learning methods: A guide for effective instruction* (3<sup>rd</sup> ed.) (pp. 3-21). Malabar, FL: Kreiger Publishing Company.
- Gee, J. P. (2005). Semiotic social spaces and affinity spaces: From the age of mythology to today's schools. In D. Barton & K. Tusting (Eds.), *Beyond communities of practice: Language, power and social context* (pp. 214-232). New York: Cambridge University Press.
- Gee, J. P. (2007). *Good video games + good learning: Collected essays on video games, learning and literacy*. New York: Peter Lang Publishing.
- Gee, J. P. (2013). *The anti-education era: Creating smarter students through digital learning*. New York: Palgrave Macmillan.
- Ginsberg, M. B., & Wlodkowski, R. J. (2010). Access and participation. In C. E. Kasworm, A. D. Rose, & J. M. Ross-Gordon (Eds.), *Handbook of adult and continuing education* (2010 ed.) (pp. 25-34). Los Angeles: Sage.
- Gould, K., Sadera, W., & McNary, S. (2015). Comparing changes in content knowledge between online problem based learning and traditional instruction in undergraduate health professional students. *Journal of Online Learning and Teaching*, 11(1), 74-86.
- Greene, J. C., Caracelli, V. J., & Graham, W. F. (1989). Toward a conceptual framework for mixed-method evaluation designs. *Education Evaluation and Policy Analysis*, 11(3), 255-274.

- Hannay, M., & Newvine, T. (2006). Perceptions of distance learning: A comparison of online and traditional learning. *Journal of Online Learning and Teaching*, 2(1), 1-11.
- Harper, D. (2002). Talking about pictures: A case for photo elicitation. *Visual Studies*, 17(1), 13-26.
- Henderson, R., & Hirst, E. (2007). Reframing academic literacy: Re-examining a short course for “disadvantaged” tertiary students. *English Teaching: Practice and Critique*, 6(2), 25-38.
- Hoppe, H., Joiner, R., Milrad, M., & Sharples, M. (2003). Guest editorial: Wireless and mobile technologies in education. *Journal of Computer Assisted Learning*, 19(3), 255-259.
- Karatas, S., & Simsek, N. (2009). Comparisons of internet-based and face-to-face learning systems based on “equivalency of experiences” according to students’ academic achievement and satisfactions. *The Quarterly Review of Distance Education*, 10(1), 65-74.
- Kasl, E., & Yorks, L. (2016). Do I really know you? Do you really know me? Empathy amid diversity in differing learning contexts. *Adult Education Quarterly*, 66(1), 3-20.
- Lammers, J. C., Curwood, J. S., & Magnifico, A. M. (2012). Toward an affinity space methodology: Considerations for literacy research. *English Teaching: Practice and Critique*, 11(2), 44-58.

- Long, H. B. (2004). Understanding adult learners. In M. W. Galbraith (Ed.), *Adult learning methods: A guide for effective instruction* (3<sup>rd</sup> ed.) (pp. 23-37). Malabar, FL: Kreiger Publishing Company.
- Merriam, S. B. (1998). *Qualitative research and case study applications in education*. San Francisco: Jossey-Bass.
- Merriam, S. B., Cafferella, R. S., & Baumgartner, L. M. (2007). *Learning in adulthood* (3<sup>rd</sup> ed.). San Francisco, CA: Jossey-Bass.
- Palmer, P. (2007). *The courage to teach: Exploring the inner landscape of a teacher's life*. San Francisco: Jossey-Bass.
- Peluso, D. C. C. (2012). The fast paced iPad revolution: Can educators stay up to date and relevant about these ubiquitous devices. *British Journal of Educational Technology*, 43(4), 125-127.
- Pink, S. (2007). *Doing visual ethnography* (2<sup>nd</sup> ed.). Thousand Oaks, CA: Sage.
- Radley, A. (2010). What people do with pictures. *Visual Studies*, 25(3), 268-279.
- Remler, D. K., & Van Ryzin, G. G. (2011). *Research methods in practice: Strategies for description and causation*. Los Angeles: Sage.
- Roach, V., & Lemasters, L. (2006). Satisfaction with online learning: A comparative descriptive study. *Journal of Interactive Online Learning*, 5(3), 317-332.
- Rose, G. (2007). Making photographs as part of a research project: Photo-elicitation, photo-documentation and other uses of photos. In G. Rose, *Visual methodologies: An introduction to the interpretation of visual materials* (2<sup>nd</sup> ed.) (pp. 237-256). Thousand Oaks, CA: Sage.

- Rossing, J. P. (2012). Mobile technology and liberal education. *Liberal Education*, Winter, 68-72.
- Rovai, A. P., Ponton, M. K., & Baker, J. D. (2008). *Distance learning in higher education: A programmatic approach to planning, instruction, evaluation, and accreditation*. New York: Teachers College Press.
- Sandmann, L. R. (2010). Adults in four-year colleges and universities: Moving from the margin to mainstream? In C. E. Kasworm, A. D. Rose, & J. M. Ross-Gordon (Eds.), *Handbook of adult and continuing education* (2010 ed.) (pp. 221-229). Los Angeles: Sage.
- School of Teacher Education. (n.d.) Ed.D. educational studies. Retrieved from [http://www.unco.edu/cebs/teachered/graduate/doctorate\\_edu\\_studies/index.html](http://www.unco.edu/cebs/teachered/graduate/doctorate_edu_studies/index.html)
- Sembiring, M. G. (2014). Modeling the determinants of student retention in distance education institutions. *International Journal of Continuing Education and Lifelong Learning*, 6(2), 15-28.
- Shachar, M., & Neumann Y. (2010). Twenty years of research on the academic performance differences between traditional and distance learning: Summative meta-analysis and trend examination. *Journal of Online Learning and Teaching*, 6(2), 318-334.
- Simonson, M. (2003). Distance education: Sizing the opportunity. *The Quarterly Review of Distance Education*, 4(4), 370-371.
- Smith, D. E., & Mitry, D. J. (2008). Investigation of higher education: The real costs and quality of online programs. *Journal of Education for Business*, 83(3), 147-152.

- Smith, M. L. (2009). Multiple methodology in education research. In J. L. Green, G. Camilli, & P. B. Elmore (Eds.), *Handbook of complementary methods in education research* (pp. 457-475). New York: Routledge.
- Somenarain, L., Akkaraju, S., & Gharbaran R. (2010). Student perceptions and learning outcomes in asynchronous and synchronous online learning environments in a biology course. *Journal of Online Learning and Teaching*, 6(2), 353-356.
- St. Clair, R., & Phipps, A. (2008). Ludic literacies at the intersections of cultures: An interview with James Paul Gee. *Language and Intercultural Communication*, 8(2), 91-100.
- Strayhorn, T. L. (2006). College in the information age: Gains associated with students' use of technology. *Journal of Interactive Online Learning*, 5(2), 143-155.
- Temple, P. (2008). Learning spaces in higher education: An under-researched topic. *London Review of Education*, 6(3), 229-241.
- University of Northern Colorado. (2015). *2015 fall census* [PDF document]. Retrieved from <http://www.unco.edu/iras/PDF's/Fall%202015%20Census%20-%209-17-15.pdf>
- U.S. Department of Education, National Center for Education Statistics. (2011). *Fast facts*. Retrieved from <http://nces.ed.gov/fastfacts/display.asp?id=80>
- U.S. Department of Education. (2014). *Enrollment in distance education courses, by state: Fall 2012* [PDF document]. Retrieved from: <http://nces.ed.gov/pubs2014/2014023.pdf>

- U.S. News & World Report. (2015). *Best online education programs*. Retrieved from <http://www.usnews.com/education/online-education/university-of-northern-colorado-OEDU0846/education>
- Visualization. (2015). In *Merriam-Webster's dictionary*. Retrieved from <http://www.merriam-webster.com/dictionary/visualization>
- Visual Studies. (n.d.). Author services. Retrieved from <http://www.tandfonline.com/action/authorSubmission?journalCode=rvst20&page=instructions#.VtPPXvkrLIU>
- Wagner, J. (2006). Visible materials, visualized theory, and images of social research. *Visual Studies*, 21(1), 55-69.
- Wang, Y. M., & Chen, D. V. (2011). Instructors as architects—Designing learning spaces for discussion-based online courses. *Journal of Educational Technology Systems*, 39(3), 281-294.
- Weimer, M. (2013). *Learner-centered teaching: Five key changes to practice* (2nd ed.). San Francisco: Jossey-Bass.
- Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. Cambridge, U.K.: Cambridge University Press.
- Wenger, E., McDermott, R., & Snyder, W. M. (2002). The early stages of development: Planning and launching communities of practice. In E. Wenger, R. McDermott, & W. M. Snyder, *Cultivating communities of practice: A guide to managing knowledge* (pp. 65-91). Boston: Harvard Business School Press.
- Wenger, E. C., & Snyder, W.M. (2000). Communities of practice: The organizational frontier. *Harvard Business Review*, January-February, 139-145.

Winchester Mystery House. (n.d.). *Sarah Winchester*. Retrieved from  
<http://www.winchestermysteryhouse.com/sarahwinchester.cfm>

**APPENDIX A**  
**INSTITUTIONAL REVIEW BOARD**  
**APPROVAL LETTER**





*Institutional Review Board*

DATE: November 30, 2015

TO: Kelly McKenna  
FROM: University of Northern Colorado (UNCO) IRB

PROJECT TITLE: [831550-2] The Deconstruction and Evolution of Distance Learning: Affinity Spaces in Higher Education  
SUBMISSION TYPE: Amendment/Modification

ACTION: APPROVAL/VERIFICATION OF EXEMPT STATUS  
DECISION DATE: November 30, 2015

Thank you for your submission of Amendment/Modification materials for this project. The University of Northern Colorado (UNCO) IRB approves this project and verifies its status as EXEMPT according to federal IRB regulations.

We will retain a copy of this correspondence within our records for a duration of 4 years.

If you have any questions, please contact Sherry May at 970-351-1910 or [Sherry.May@unco.edu](mailto:Sherry.May@unco.edu). Please include your project title and reference number in all correspondence with this committee.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within University of Northern Colorado (UNCO) IRB's records.

**APPENDIX B**  
**EDUCATIONAL STUDIES DOCTORAL**  
**STUDENT SURVEY**

For the purposes of this study, a learning space is defined as places individuals with a shared interest assemble, face-to-face, online, or at a distance to: share resources and values, generate collective intelligence, and/or create collaborative materials (artifacts).

### **Demographics**

Cohort:

Gender:

Age:

Location:

### **Likert Scale**

1) Strongly Agree    2) Agree    3) Disagree    4) Strongly Disagree

1. You are in the Educational Studies learning space by choice.
2. You have a shared interest with the other students in your Educational Studies cohort.
3. The Educational Studies cohort is comprised of individuals with diverse backgrounds and ages.
4. Individuals in the cohort range from amateurs to experts in educational studies.
5. The individuals in the cohort have a variety of interests surrounding education.
6. High standards for excellence within the learning space are set by individuals with mastery of the content.
7. The learning space is dedicated to production not just the gathering of knowledge.
8. All members of the learning space have the opportunity to contribute to the degree they are interested.

9. All contributions to the learning space have potential for significance.
10. All contributions to the learning space are welcome.
11. Diversity within the learning space is valued.
12. Status within the learning space is amenable and fluid.
13. Leadership within the learning space is amenable and fluid.
14. Status in the cohort is based on an individual's engagement and accomplishments within the learning space, not what has been attained outside of the learning space.
15. Resources within the learning space are plentiful. (e.g. peers, experts, outside materials, content links. . . .)
16. Resources within the learning space are fluid and amendable by the participants rather than static resources.
17. Participants in learning space may have a specific focus, but must also collaborate with others.
18. The learning space has established a unique culture.
19. The learning space is open to new ideas and recognizes outside knowledge to ensure growth and diversity.
20. All individuals in the learning space are expected to facilitate learning for themselves and other participants.
21. Participants motivations in the learning space vary.
22. Participants tenure in the learning space varies.
23. Because participants in the cohort have a shared interest there is no delineation between mandatory participation and intrinsic enrichment within the learning space.

24. Socialization within the learning space is secondary only to the objective of the learning space.
25. Socialization within the learning space is achieved through a variety of mediums.
26. The learning space is based on tangible production not assertions or philosophies.

### **Open-Ended Questions**

1. How do you define the learning space in your Educational Studies program?
2. What comprises the Educational Studies Ed.D. learning space (e.g., BlackBoard, wiki, Facebook page, website. . . .)?
3. Who creates the learning space in the Educational Studies Ed.D. program?
4. Who are stake holders in the learning space (e.g., faculty, administrators, students. . . .)?
5. Who may participate and contribute to this learning space?
6. How do you utilize the learning space in your Educational Studies program?
7. What are the characteristics of your Educational Studies learning space (social, physical. . . .)?

### **Visual Image Creation**

This study is focused on researching the distance education learning space, and what you consider to be a part of your learning space. One element of the research incorporates visual methodologies. Please produce a visual image representing the learning space for your Educational Studies program. This image may be a photograph, drawing, collage, digital image, video clip, painting, graffiti, diagram, cartoon, map or any other visual image you think represents your learning space.

Please explain your image. Why did you create the image you did? Why did you choose to include each of the elements present in the image? What did you choose not to include? Why did you choose not to include elements?

**APPENDIX C****INITIAL STUDENT EMAIL**

Dear Fellow Doctoral Student,

I am an Educational Technology Doctoral Candidate completing my dissertation on the distance learning environment and affinity spaces. The research will explore the learning space, who the stake holders are, and how the space is utilized. The distance learning space will be examined to establish if affinity spaces can be applied in higher education. By better understanding the distance learning environment we can create a more positive learning experience for distance higher education students.

Your participation in an online survey would be greatly appreciated. I have targeted a very specific population consisting of the Educational Studies EdD distance program, so your consideration in participating in this research would be extremely valued. As a fellow doctoral student working full time I am acutely aware of the lack of time available for superfluous engagements, so want you to know how much I appreciate you considering participating in the research.

Qualtrics survey software is being utilized to conduct the survey and completion should take approximately thirty minutes. Your name will not be connected to your responses, data or any portion of the research.

At the conclusion of the survey you will have the opportunity to provide your name and email address if you wish to be entered into a drawing for a \$50.00 American Express Gift Card. Your name and email will not be used in the research or for any purposes beyond the drawing. Only the researcher will have access to this information solely for the purposes of completing the drawing. The drawing is to assist in offsetting the time and inconvenience associated with participation in the survey and as incentive for participation. The odds of winning the drawing depend on the number of distance Educational Studies EdD students who choose to enter the drawing. The winner will be notified via the email address provided no later than 60 days after the survey is sent to participants.

If you have any additional questions regarding the survey or the study in general, please do not hesitate to contact me. Thank you for your consideration.

Survey:

[https://unco.co1.qualtrics.com/SE/?SID=SV\\_74i9hbc8HMEQr1r](https://unco.co1.qualtrics.com/SE/?SID=SV_74i9hbc8HMEQr1r)

Sincerely,

Kelly McKenna  
970-420-6630  
[kelly.mckenna@unco.edu](mailto:kelly.mckenna@unco.edu)



**APPENDIX D**  
**FOLLOW-UP STUDENT EMAIL**

Dear Fellow Doctoral Student,

I recently sent you an email requesting your participation in a survey on the distance learning environment and affinity spaces. If you have already completed this survey please disregard this email and Thank You! If you have not had the opportunity to complete the survey, but are interested in participating, please consider accessing the survey at this time, the survey will conclude Sunday, December 20, 2015. Again, I have targeted a very specific population consisting of the Educational Studies distance program, so your participation in the online survey would be greatly valued.

As I mentioned, with the expansion of distance education the intent of the research is to better understand the distance learning environment in order to create a more positive learning experience for distance higher education students.

Completion of the survey should take approximately thirty minutes and at the conclusion of the survey you will have the opportunity to provide your name and email address if you wish to be entered into a drawing for a \$50.00 American Express Gift Card.

If you have any questions, please do not hesitate to contact me. Thank you for your consideration in assisting me in this research.

Survey:

[https://unco.co1.qualtrics.com/SE/?SID=SV\\_74i9hbc8HMEQr1r](https://unco.co1.qualtrics.com/SE/?SID=SV_74i9hbc8HMEQr1r)

Sincerely,

Kelly McKenna  
970-420-6630  
[kelly.mckenna@unco.edu](mailto:kelly.mckenna@unco.edu)

**APPENDIX E**  
**STUDENT CONSENT FORM**

CONSENT FORM FOR HUMAN PARTICIPANTS IN RESEARCH  
UNIVERSITY OF NORTHERN COLORADO

**Project Title:** The Deconstruction and Evolution of Distance Learning: Affinity Spaces in Higher Education

**Researcher:** Kelly McKenna

**Phone Number:** 970-420-6630

**E-mail:** kelly.mckenna@unco.edu

**Research Advisor:** Christine Kyser

**E-mail:** christine.kyser@unco.edu

**Purpose and Description:**

This study will focus on the virtual classroom in a distance graduate higher education program. The research will explore the learning space, who the stake holders are, and how the space is utilized. Affinity spaces will be examined to establish if affinity spaces can be applied in higher education. Affinity spaces are physical or virtual places where individuals with a shared interest gather to facilitate learning, gain collective intelligence and produce artifacts related to a joint enterprise. This research may lead to creating a more positive distance learning experience and more beneficial distance learning environment

As a participant in this research, you will be asked to complete a three part survey, including open and closed ended questions, and the creation of a visual image. Each survey should take approximately 30 minutes to complete. The survey will be conducted utilizing Qualtrics Online Survey Software. Part three of the survey incorporates the creation and explanation of a visual image. Due to limitations of Qualtrics data collection, this portion of the survey will be emailed directly to the researcher (kelly.mckenna@unco.edu). You will be asked for your name to acknowledge your consent to participate. This is required by UNC IRB guidelines.

**Risks:**

The foreseeable risks to you as a participant are minimal to nonexistent. The only concern would be the potential for stress caused by completing an online survey. You have the option to withdraw consent at any time if you find the questions too probing or personal. While every effort will be taken to maintain the confidential nature of this questionnaire and your responses, there is always the risk of accidental disclosure of information.

Participation in the questionnaire is completely voluntary. You can opt out of participation at any time by simply closing the survey window. If you have completed the survey or have decided not to participate, please ignore any follow-up email you receive.

**Compensation:**

At the conclusion of the survey you will have the opportunity to provide your name and email address if you wish to be entered into a drawing for an American Express Gift

Card. Your name and email will not be used in the research or for any purposes beyond the drawing. Only the researcher will have access to this information solely for the purposes of completing the drawing. The drawing is to assist in offsetting the time and inconvenience associated with participation in the survey and as incentive for participation. The odds of winning the drawing depend on the number of distance Educational Studies EdD students who choose to enter the drawing. The winner will be notified via the email address provided no later than 60 days after the survey is sent to participants. Educational Studies EdD student participants will be entered into a drawing for one \$50.00 American Express Gift Card.

*By completing the questionnaire, you give permission for your participation. You may print off and keep this page for future reference. If you have any concerns about your selection or treatment as a research participant, please contact **Sherry May, IRB Administrator, Office of Sponsored Programs, Kepner Hall, University of Northern Colorado Greeley, CO 80639; 970-351-1910.***

Please add your first and last names in the boxes below if you have read and agree with the consent information above.

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**APPENDIX F**  
**EDUCATIONAL STUDIES FACULTY SURVEY**

For the purposes of this study, a learning space is defined as places individuals with a shared interest assemble, face-to-face, online, or at a distance to: share resources and values, generate collective intelligence, and/or create collaborative materials (artifacts).

### **Open-Ended Questions**

1. What comprises the Educational Studies EdD learning space (e.g. BlackBoard, wiki, Facebook page, website. . . .)?
2. Who creates the learning space in the Educational Studies Ed.D. program?

**APPENDIX G**  
**FACULTY CONSENT FORM**



CONSENT FORM FOR HUMAN PARTICIPANTS IN RESEARCH  
UNIVERSITY OF NORTHERN COLORADO

**Project Title:** The Deconstruction and Evolution of Distance Learning: Affinity Spaces in Higher Education

**Researcher:** Kelly McKenna

**Phone Number:** 970-420-6630

**E-mail:** kelly.mckenna@unco.edu

**Research Advisor:** Christine Kyser

**E-mail:** christine.kyser@unco.edu

**Purpose and Description:**

This study will focus on the virtual classroom in a distance graduate higher education program. The research will explore the learning space, who the stake holders are, and how the space is utilized. Affinity spaces will be examined to establish if affinity spaces can be applied in higher education. Affinity spaces are physical or virtual places where individuals with a shared interest gather to facilitate learning, gain collective intelligence and produce artifacts related to a joint enterprise. This research may lead to creating a more positive distance learning experience and more beneficial distance learning environment

As a participant in this research, you will be asked to complete a brief survey. Each survey should take approximately 10 minutes to complete. The survey will be conducted utilizing Qualtrics Online Survey Software. You will be asked for your name to acknowledge your consent to participate. This is required by UNC IRB guidelines.

**Risks:**

The foreseeable risks to you as a participant are minimal to nonexistent. The only concern would be the potential for stress caused by completing an online survey. You have the option to withdraw consent at any time if you find the questions too probing or personal. While every effort will be taken to maintain the confidential nature of this questionnaire and your responses, there is always the risk of accidental disclosure of information.

Participation in the questionnaire is completely voluntary. You can opt out of participation at any time by simply closing the survey window. If you have completed the survey or have decided not to participate, please ignore any follow-up email you receive.

**Compensation:**

At the conclusion of the survey you will have the opportunity to provide your name and email address if you wish to be entered into a drawing for an American Express Gift Card. Your name and email will not be used in the research or for any purposes beyond the drawing. Only the researcher will have access to this information solely for the purposes of completing the drawing. The drawing is to assist in offsetting the time and inconvenience associated with participation in the survey and as incentive for

participation. The odds of winning the drawing depend on the number of Educational Studies EdD faculty who choose to enter the drawing. The winner will be notified via the email address provided no later than 60 days after the survey is sent to participants. Educational Studies EdD faculty participants will be entered into a drawing for one \$25.00 American Express Gift Card.

*By completing the questionnaire, you give permission for your participation. You may print off and keep this page for future reference. If you have any concerns about your selection or treatment as a research participant, please contact **Sherry May, IRB Administrator, Office of Sponsored Programs, Kepner Hall, University of Northern Colorado Greeley, CO 80639; 970-351-1910.***

Please add your first and last names in the boxes below if you have read and agree with the consent information above.

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**APPENDIX H**  
**INITIAL FACULTY EMAIL**

Dear Educational Studies EdD Faculty,

I am an Educational Technology Doctoral Candidate completing my dissertation on the distance learning environment and affinity spaces. The research will explore the learning space, who the stake holders are, and how the space is utilized. The distance learning space will be examined to establish if affinity spaces can be applied in higher education. By better understanding the distance learning environment we can create a more positive learning experience for distance higher education students.

Your participation in a brief online survey would be greatly appreciated. I have targeted a very specific population consisting of the Educational Studies EdD distance program, so your consideration in participating in this research would be extremely valued. Qualtrics survey software is being utilized to conduct the survey and completion should take approximately ten minutes. Your name will not be connected to your responses, data or any portion of the research.

At the conclusion of the survey you will have the opportunity to provide your name and email address if you wish to be entered into a drawing for a \$25.00 American Express Gift Card. Your name and email will not be used in the research or for any purposes beyond the drawing. Only the researcher will have access to this information solely for the purposes of completing the drawing. The drawing is to assist in offsetting the time and inconvenience associated with participation in the survey and as incentive for participation. The odds of winning the drawing depend on the number of distance Educational Studies EdD faculty who choose to enter the drawing. The winner will be notified via the email address provided no later than 60 days after the survey is sent to participants.

If you have any additional questions regarding the survey or the study in general, please do not hesitate to contact me. Thank you for your consideration.

Survey:

[https://unco.co1.qualtrics.com/SE/?SID=SV\\_cXWv7Zx9ualihaR](https://unco.co1.qualtrics.com/SE/?SID=SV_cXWv7Zx9ualihaR)

Sincerely,

Kelly McKenna  
970-420-6630  
[kelly.mckenna@unco.edu](mailto:kelly.mckenna@unco.edu)

**APPENDIX I**  
**FOLLOW-UP FACULTY EMAIL**

Dear Educational Studies EdD Faculty,

I recently sent you an email requesting your participation in a survey on the distance learning environment and affinity spaces. If you have already completed this survey please disregard this email and Thank You! If you have not had the opportunity to complete the survey, but are interested in participating, please consider accessing the survey at this time, the survey will conclude Sunday, December 20, 2015. Again, I have targeted a very specific population consisting of the Educational Studies distance program, so your participation in the online survey would be greatly valued.

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Completion of the survey should take approximately ten minutes and at the conclusion of the survey you will have the opportunity to provide your name and email address if you wish to be entered into a drawing for a \$25.00 American Express Gift Card.

If you have any questions, please do not hesitate to contact me. Thank you for your consideration in assisting me in this research.

Survey:

[https://unco.co1.qualtrics.com/SE/?SID=SV\\_cXWv7Zx9ualihaR](https://unco.co1.qualtrics.com/SE/?SID=SV_cXWv7Zx9ualihaR)

Sincerely,

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