VIRTUAL HUMAN RESOURCE DEVELOPMENT AND ADJUNCT COMMUNITY COLLEGE FACULTY: A QUALITATIVE STUDY OF HOW FACULTY DEVELOPED AND LEARNED TO TEACH ONLINE THROUGH INFORMAL LEARNING

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Abstract

The purpose of this basic qualitative study was to understand how adjunct faculty developed professionally and learned to teach online through informal learning. To fulfill this purpose, three research questions were formulated as a foundation for this investigation: a/ How did adjunct faculty learn to teach online through informal learning? b/ How did formal training encourage adjunct faculty to learn through informal means? c/ How, if applicable, did adjunct faculty experience moments of sudden insight when learning to teach online? Data included twenty two semi-structured, in-depth interviews and field notes. Data was analyzed using general inductive analysis, constant comparison, and included multiple coding strategies. Participants represented a range and variation in demographics including age, gender and ethnicity.

Findings show that adjunct faculty learned to teach online through informal learning by adapting to student needs, prevailing over constraints, seeking others experience with online teaching, and exploring through experimentation. Formal training encouraged adjunct faculty to learn through informal means by developing confidence to practice, connecting instructors to resources, and offering multiple perspectives. Moments of sudden insight were experienced by adjunct faculty through self-discovery, surprise, rethinking, meaningful linkages and a freed mind. From these findings, three salient conclusions were drawn. First, informal learning is a continual process essential to the development of adjunct online faculty. Second, formal learning recognizes and anticipates learning needs that encourages adjunct online faculty to learn informally. Third, sudden moments of insight are a mixture of conscious and subconscious thinking integral to informal learning of adjuncts.

Keywords: informal learning, adjunct faculty, community college, online teaching, virtual human resource development, higher education, moments of insight
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TABLE OF CONTENTS

ACKNOWLEDGEMENTS .................................................................................................................. 3

LIST OF TABLES .......................................................................................................................... 7

LIST OF FIGURES ......................................................................................................................... 7

CHAPTER

1 STATEMENT OF THE PROBLEM

   Introduction ................................................................................................................................. 8

   Conceptual Framework ............................................................................................................. 13

   Research Problem Statement ................................................................................................. 21

   Research Purpose and Questions ............................................................................................ 26

   Significance of the Research Problem ..................................................................................... 26

   Positionality Statement ............................................................................................................ 28

   Definition of Term ................................................................................................................... 30

2 LITERATURE REVIEW

   Introduction ................................................................................................................................. 31

   Scope and Organization ........................................................................................................... 31

   Community Colleges ................................................................................................................. 33

   Online Education and E-Learning ......................................................................................... 42

   Skills Needed to Teach Online ............................................................................................... 52

   Faculty Learning and Development in Virtual Human Resource Development ...60

   Chapter Summary .................................................................................................................... 75

   Limitations and Conclusions ................................................................................................. 76
3 RESEARCH METHODS

Interpretivism ........................................................................................................78
Qualitative Research ................................................................................................80
Research Approach ...............................................................................................81
Participants and Sampling ....................................................................................84
Data Collection .......................................................................................................87
Data Analysis .........................................................................................................90
Reliability and Validity ..........................................................................................95
Internal and External Validity ................................................................................96
Limitations ...............................................................................................................99
Data Storage and Destruction ...............................................................................100
Protection of Human Subjects ..............................................................................100

4 FINDINGS

Study Participants .................................................................................................102
Findings ................................................................................................................109
Chapter Summary .................................................................................................165

5 CONCLUSIONS AND IMPLICATIONS

Conclusions and Discussion .................................................................................167
Implications for Practice ....................................................................................177
Implications for Field ........................................................................................181
Recommendations for Future Research ..............................................................183
Concluding Thoughts .........................................................................................185

REFERENCES ......................................................................................................187
APPENDICES

<table>
<thead>
<tr>
<th></th>
<th>Appendix</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Recruitment Letter</td>
<td>226</td>
</tr>
<tr>
<td>B</td>
<td>Informed Consent Form</td>
<td>227</td>
</tr>
<tr>
<td>C</td>
<td>Initial Interview Guide</td>
<td>229</td>
</tr>
<tr>
<td>D</td>
<td>Second Interview Guide</td>
<td>231</td>
</tr>
</tbody>
</table>
LIST OF TABLES

Table 1: Final Sample Matrix........................................................................................................87
Table 2: The Coding Process in Inductive Analysis.................................................................91
Table 3: Matrix of Participants’ Key Demographics..................................................103
Table 4: Summary of Findings..............................................................................................110

LIST OF FIGURES

Figure 1. Four Mode Model of Informal Learning................................................17
Figure 2. The overlap of VHRD and Informal Learning for Adjunct Faculty.............19
CHAPTER ONE: STATEMENT OF THE PROBLEM

Introduction

The intersection of education and technology over the past twenty years has been unlike any other in history. The rapid rise of online education has reformed the way students take courses. In 2011, 32% of college students were enrolled in at least one online course, up 22.4% since 2002 (Allen & Seaman, 2012; Pearson Foundation, 2011). Advancements in technology and the Internet have helped create the world of online education, which has challenged and reshaped traditional teaching methods within higher education (Cejda, 2010; Madaus, 2013).

This shift in paradigm has affected colleges and universities in many ways including an unprecedented competition for students, the reallocation of assets and resources into teaching with technology and the need to quickly train and develop faculty within the online environment (Mandernach, Donnelly, Dailey, & Schulte, 2005; Reiser & Dempsey, 2007; Stavredes, 2011; Villagran-Glover, 2012; Ward & Benson, 2010). Faculty have also been affected, as the demand for skilled online instructors has increased, where strong technology skills, an understanding of online pedagogy and a sense of best practices are highly coveted (Bedford, 2009; Dennen, Darabi, & Smith, 2007; Joyce & Brown 2009; Kearsley, 2010). The shift represents a new model and method of teaching, which has greatly impacted adjunct faculty at community colleges with respect to the experience and knowledge that these faculty need to accumulate, develop and perfect (Alhawiti, 2011; Webb, 2007).

Online education continues to grow at both two year and at four year institutions. In 2014, there was an estimated 7.1 million students who took at least one college level course online at institutions of higher education in the United States (Allen & Seaman, 2014). The same study found that 65% of its participating institutions, many of which were community colleges,
explained that online learning has become a critical, long-term strategy to their institution’s mission. This statistic is up from 49% in 2002. The adoption of online learning as a critical part of the community college mission has become strategic, as these institutions leverage a low cost education with the flexibility and convenience of online learning (Prasad & Lewis, 2008).

Community colleges have been impacted by the growth of online education. A 2014 Instructional Technology Council survey of community college revealed that 90% of the respondents offer at least one degree completely online, up from 66% in 2010 (Lokken & Mullins, 2014). The same study found that 33.5% of community college students took at least one course online, which is the highest proportion of students on record. It appears that online learning has always been consistent with the mission of community colleges, a mission meant to provide affordable access to higher education to those who sought it (Hachey, Conway & Wladis, 2013). Through online education, community colleges have discovered innovative teaching and learning practices to attract new students which have expedited the need to train and develop faculty (Ruth, Sammons, & Poulin, 2007). Community college administrators surveyed in 2014 were optimistic about the role online education played on their campuses, with many stating that any growth that their institutions have had over the past few years was attributed to their online courses and programs (BSRG, 2014; Lokken & Mullins, 2014).

The field of online education has a relatively short history, which has rapidly developed over the past ten years. The Instructional Technology Council or ITC, started surveying community colleges in 2004 as a means of tracking trends and developments of online learning in higher education. The following several trends have emerged in 2014:

- Student demand for online courses had grown at almost every member institution from 2004 to 2014 (American Association of Community Colleges, 2015)
Online program administration has shifted to a more academic position under deans and academic vice presidents, away from information technology (IT) or library services (Lokken & Mullins, 2015). Online education is now favorably viewed as a mainstay. Online learning has become a change agent helping to promote technical engagement and usage by faculty (Slimp, 2014).

In keeping with these trends, a new faction of community college faculty has emerged. This faction is made up of community college faculty who teach online on an adjunct, or part-time basis. Adjunct faculty are defined as those hired on a contingent semester to semester basis. Adjunct faculty differ from full time faculty in many ways. Adjunct faculty are paid lower wages per course than their full time counterparts and typically do not receive health care benefits nor are they eligible for retirement and pensions plans (Avakian, 1995; Dolan, 2011; Gaillard-Kenney; 2006).

Adjunct faculty came about for a variety of reasons, especially at community colleges. These institutions were among the first to offer classes in the evenings, on weekends and online, as a means of attracting working adults (Cohen & Brawer, 2003). Adjunct faculty have often filled these roles of teaching courses that meet outside of the normal workweek. The use of adjuncts in higher education has risen tremendously. Historically, adjunct faculty have played an important role at community colleges, yet they are an often marginalized group, offered minimal support and limited resources (Gappa, 2000).

The need to support and train faculty has always been important, especially during times of paradigm shift (online learning), during the introduction of new technologies (learning management systems) and in general to update faculty on trends (flipped classrooms) and best
practices (Quality Matters) (Bedford, 2009). While the aforementioned training needs seem universal to both full time and adjunct faculty, the options available are not necessarily the same (Gibbons & Wentworth, 2001). Training sessions and development opportunities held during the day or during traditional hours may interfere with an adjunct’s schedule, many of whom piece together part time teaching assignments at multiple schools to make a living (Goldrick-Rab, 2010; Kezim, Pariseau, & Quinn, 2005).

Historically, adjunct faculty have been viewed as auxiliary, lacking access to the same training and development as their full-time teaching counterparts (Zone, 2013). Further, Zone found that in 142 institutions surveyed, nearly 60% of these institutions required their faculty to receive six or more hours of formal learning, such as certification courses, before they taught online. Formal learning is defined as learning that takes place within a very strict, confined and prescribed environment (Marsick & Watkins, 1990; Trinder, Guiller, Margaryan, Litteljohn, & Nicol, 2008). Only 18% of the respondents did not require any training for faculty to teach online, while the other 22% had resources and seminars available for. This statistic shows that some level of training is often considered necessary; however, basic training may not be enough to develop expertise in faculty especially when learning platforms are increasingly complex (Bennett, 2014). Not all institutions require training, but skills for teaching online must be learned somehow. Where a few hours of formal training is insufficient to fully prepare faculty to teach online, faculty must seek their own supplemental training, learning through experience and finding resources to help, or remain unskilled in some areas of their development. Additionally, formal training may be less accessible to adjunct faculty than to full time equivalents (Gappa, 2000; Hager & Halliday, 2006).
Much of the formal preparation that faculty receive to teach online includes topics in instructional design, student learning styles, online pedagogy and technical skills building (Puzziferro, 2009; Shelton & Saltsman, 2005). The importance of these topics has been formalized by organizations such as Quality Matters (QM) and by The Online Learning Consortium (OLC). Both organizations were built out of the necessity to formally train and develop faculty who teach online (Online Learning Consortium, 2014; Quality Matters (2014)). Technology skills such as learning how to use the course management system and understanding emerging technologies are two examples of technical skills that faculty have been expected to learn (Ray, 2009). The combination of these skills takes time to develop and faculty must build up their understanding of each, as they increase confidence through practice in hopes of actual implementation. The time and resources it takes to develop these skills in online faculty is still a top challenge of college administrators (Lokken & Mullins, 2014). If faculty cannot participate in training to develop these skills, then institutions need to better understand how these skills are being learned and what they can do to facilitate a more inclusive faculty learning environment.

Many community colleges have professional development days, workshops and related on the job training opportunities that help faculty, especially adjuncts, assimilate and learn the skills needed to thrive in an online environment (Meyer & Barefield, 2010; Ray, 2009; Wallin, 2004). Typically, these opportunities are single instance, with relatively little to no permanence. Meyer and Barefield (2010) concluded training that is not continual and supportive is quickly forgotten. Virtual Human Resource Development (VHRD) is a developing area of inquiry that looks at the overall environment in which the individual, group or the organization as a whole can learn and develop (Bennett, 2010). Adjunct faculty learning to teach online need a conduit such as VHRD that allows learning and development to take place away from formal
environments that are restrictive by nature. Although formal learning – that which is intentionally designed – and informal learning are both critical components of VHRD. Informal learning has emerged as the stronger partner of the learning process within VHRD, given the frequency of interaction between the learner and the virtual environment (Bennett, 2009; Bennett & Bierema, 2010). One main emphasis on today’s learning environment is based on connection through development, where faculty are connected to data, content, tutorials, personal learning networks and other professionals, that enhance their teaching skills, encourage learning communities and extend access to learning resources (Hopewell, 2012). VHRD has already produced promising results such as saving time, encouraging more efficient development and delivery of training, improved organizational ecology and an optimal utilization of human capital in the workplace (Bennett & Bierema, 2010; Nafukho, Graham, & Muyia, 2010, Short, 2010).

Trends show that some institutions are moving to a more adjunct faculty base, so understanding the training and development needs of this contingent faculty base has become critical (Snyder, Dillow, & Hoffman, 2008). According to The National Center for Education Statistics, the number of full time staff is growing at a slower rate than part time staff (Snyder, 2009). A recent study shows that 43% of faculty who teach online in higher education are adjunct or part time faculty (Lokken & Mullins, 2014). According to the Center for Community College Student Engagement, in 2014, almost 70% of faculty at community colleges in the United States were adjuncts.

**Conceptual Framework**

The development of faculty is a special form of human resource development, and this study is focused on the development of adjunct community college faculty to teach online courses. This study is intended to explore informal learning in the form of interactions and
experiences that adjunct community college faculty participated in, as they prepared to teach online. Although there are formal training programs that help adjunct faculty become proficient with online teaching, they may not be comprehensive enough. These formal training programs tend to ignore informal learning and its potential in this development process of human resource development, especially with adjunct faculty.

The converging elements of Virtual Human Resource Development (VHRD) and the Four Mode Informal Learning Model (Bennett, 2012) comprised the conceptual framework that will inform this study. A brief overview of VHRD and the Four Mode Informal Learning Model (Bennett, 2012) will be highlighted in this chapter and further explained in greater detail in Chapter Two.

**Virtual Human Resource Development**

VHRD represents a virtual learning environment in which people interact not only with each other but also with objects and various forms of media that have embedded values (Bennett, 2009). The virtual workplace is now quite common as people use technologies to create virtual spaces (Bennett, 2006, 2009), and these spaces offer a place to connect within, not just through technology (McWhorter, 2010). The VHRD model is a new approach to capturing knowledge and information within an organization while leveraging this knowledge to develop and enhance human capital (Hanandi & Grimaldi, 2010).

VHRD represents a hybridization of work between local, physical and virtual environments which redefines the nature of human development (Bennett & Bierema, 2010). In its entirety, VHRD does not impose limitations and restrictions as other learning environments do, but rather it expands and grows as the volume of information, knowledge and interaction develops. The VHRD environment encapsulates and promotes openness, exploration, opinion
sharing, blogging and self-directed learning within its ever expanding boundaries (Ebner, Lienhardt, Rohs, & Meyer, 2010).

VHRD is a sophisticated, intertwined virtual environment that supports and encourages learning through its focus of connecting learners with resources. VHRD conceptualizes a much more complex learning environment, rather than just focusing on discrete pieces within a system (Bennett, 2014). While formal learning does occur in VHRD, it is informal learning that has been theorized as a more congruent partner of VHRD (Bennett, 2009; Bennett & Bierema, 2010). Bennett’s (2009) seminal work on VHRD defined it as a “media-rich and culturally relevant web[bed] environment that strategically improves expertise, performance, innovation, and community building through formal and informal learning” (p. 364). When applied to adjunct faculty for this study, the definition calls attention to learning that occurs while faculty are engaged in the process of designing and delivering courses. They may learn from objects and interactions with other people within their college’s learning management system. Adjunct faculty may learn from students or other faculty. Bennett’s definition also emphasizes that both formal and informal learning are important processes within VHRD. Given that the field has some sense of what formal learning is offered to adjuncts, if at all, the informal learning aspects of VHRD are far less known, yet important for learning on the job.

Model of Four Modes of Informal Learning

The Four Part Mode Informal Learning Model (Bennett, 2012) was re-conceptualized from Schugurensky’s (2000) three mode typology, which included self-directed learning, incidental learning and tacit learning or socialization. Schugurensky (2000) described each mode as follows:
• Self-directed learning is conscious and intentional, where a person purposely participates in learning.

• Incidental learning is conscious but unintentional, where the person did not set out to learn something, but realized they did learn something after the experience took place.

• Tacit learning (socialization) is both unconscious and unintentional and is often referred to as implicit learning, or socialization.

Each mode within the informal learning model is distinguished by two categories, intentionality and consciousness (Schugurensky, 2000). Schugurensky (2000) defined intentionality as learning with a purpose, where the individual seeks out information with the intent of learning. He defined consciousness as the state of mind in which the individual is aware that they are learning, by processing information and knowledge.

Earlier theorists and studies have described informal learning as everyday learning, or learning that is derived from the experience of daily life (Coombs, Prosser, & Ahmed, 1973; Merriam, Cafferella, & Baumgartner, 2009). Eraut (2004) theorized that informal learning offers great flexibility and freedom for learners, since it recognizes the social significance of learning. Eraut’s (2000) three part typology of informal learning included three levels of intention to learn, which were implicit learning, reactive learning and deliberative learning.

It was in the 1980s when informal learning research began to appear in literature (Edwards & Usher, 2001). Bandura (1986) suggested that informal learning is accomplished and enabled by social learning. Berliner (1988) studied critical reflection of classroom teachers as part of their experiential development, as part of an unstructured learning environment. The 1990s began to expand on elements of informal learning through studies that analyzed mentoring...
(Conlon, 2004), self-directed learning (Marsick & Watkins, 2001), asking questions (Eraut, 2004) and feedback (Eraut, 2004; Marsick & Watkins, 2001) as part of informal learning. Informal learning has been greatly studied in the workplace, to where it has been determined to be the major way many people learn within their work environments (Burns & Schafer, 2003; Leslie, Aring, & Brand, 1998; Lohman, 2000).

Figure 1. Four Mode Model of Informal Learning (Bennett, 2012)

The fourth mode of this model, conceptualized by Bennett (2012), was integrative learning. The integrative learning mode is defined as learning that combines intentional nonconscious processing of tacit knowledge with conscious access to learning products and mental images (Bennett, 2012). The result of this nonconscious, intentional process is the sudden moment of insight or ah-ha moment, where a solution to a problem or issue suddenly surfaces and is resolved. The power of this moment has been described as life changing and revolutionary, as it suddenly develops an answer from out of nowhere (Kiefer & Constable, 2013).

The four mode model distinguishes itself from other frameworks, because of its
innovative focus on sudden insight, intuition and non-conscious processes that may help learners’ process complex problems that have no easy or pat solutions (Bennett, 2012). The environment of VHRD provides structure for rich media, such as graphics and web pages, to help integrate behind the scenes connections to informal learning. Online adjunct faculty can view the learning management system as a connection to learning through a downstream system of information that helps develop their capacity to understand (Bennett & Bierema, 2010). This four mode framework encompasses how the concept of learning has been redefined over the past decade or so with the growth of technology and access to information. Siemens (2004) identified several learning trends that have come to fruition. These trends included:

- Informal learning will become a significant component of our learning experience
- Technology is altering or rewiring our brains
- Learning is becoming continual, essentially lasting a lifetime
- Know-how and know-what is being supplemented with know-where (the notion of understanding where to find knowledge as needed)

The four mode informal learning model is an integration of learning formats that take place outside of formal learning environments. Formal learning is learning that takes place within a very strict, confined and prescribed environment (Marsick & Watkins, 1990; Trinder, Guiller, Margaryan, Litteljohn, & Nicol, 2008). Informal learning is an activity that involves the pursuit of knowledge, understanding or skill that occurs without the presence of externally imposed criteria (Livingston & Sawchuk, 2000).

The overlap between VHRD and informal learning bridges and brings together a technologically driven environment that enables and supports the process of informal learning. Figure 2 visually illustrates the overlap between VHRD and informal learning and highlights
Figure 2 shows how adjunct faculty (depicted in the center of Figure 2) are essentially embedded learners who benefit from an environment (VHRD) that supports their individualized learning needs (Informal Learning). To understand Figure 2 is to understand that data and information has a bidirectional flow, back and forth from the environment to the learner and from learner back to the environment. The flow of knowledge and information represents a mutually beneficial relationship among VHRD, informal learning and adjunct faculty. The power of Figure 2 is that all three elements (the environment, the process and the participant) have the ability to reinforce and support each other, to ultimately strengthen the body of knowledge that is...
developed and maintained within the organization.

The overlap is what enables informal learning to exist through VHRD. Informal learning has an environment that allows learning to be captured, documented and shared to improve performance, build expertise, spur innovation and foster community building. This intersection is the connection between the environment and the process of learning, acting together in unison to ensure continuous learning, through embedded systems, that connect learners to knowledge. Without recognizing the importance of this overlap, the entirety of informal learning may not be realized and knowledge might become underutilized, or even forgotten. Building expertise and other outcomes would be difficult, even disruptive, without the integration of a supportive environment and a perpetual learning process.

Summary

The intersection of VHRD and the Four Mode Informal Learning Model (Bennett, 2012) is ideal for an examination of how informal learning affected the development of adjunct faculty as they learned to teach online. This conceptual framework will facilitate an understanding of what interactions supported learning from the individual perspective of online adjunct faculty. The connection between VHRD and informal learning will inform the study by congregating together the environment of VHRD and the process of informal learning, as an innovative and effective learning venture for community colleges who seek to develop adjunct faculty pragmatically. Additionally, the study will help provide insight into the personal experiences of learning developed through informal means which is virtually unexplored in existing literature. In order for institutions like community colleges to attract and retain the best faculty, they must refocus and redesign paradigms and processes to maintain a competitive edge moving forward (Puzziferro & Shelton, 2009).
Research Problem Statement

As online education continues to grow, so does the use of adjunct faculty especially at community colleges. These institutions cannot sustain a large enough contingency of full time faculty to meet the ongoing demand for online courses and programs (Bedford, 2009). Developing faculty to teach online is an important element to any successful operation in today’s online learning environment. However, adjunct faculty often work on the margins of a college’s infrastructure and may not receive the training and other opportunities for professional development as full time faculty do (Kearsley, 2010; Stavredes, 2011). Since a lot of what goes into the renewal of adjunct faculty appointments depends upon strong teaching skills and a record of good evaluations, adjunct faculty need access to continual learning opportunities in order to develop their online teaching prowess (Madaus, 2013). Therefore, adjunct faculty must learn how to teach online somehow, especially when formal training sessions are restricted by time or limited in scope or in some cases completely unavailable (Moore & Kearsley, 2012). It is highly possible that disconnect exists between what community colleges offer in the form of formal learning and how adjunct faculty actually learn to teach online.

Literature in VHRD indicates that informal learning is an integral part of learning in virtual environments, as people learn from interaction with each as well as interactions with content, digital objects and other media (Bennett, 2009; Bennett, 2014; Bennett & Bierema, 2010; Bennett & McWhorter, 2014). This means adjunct faculty may learn to teach online by interacting within the learning management system used to deliver online classes, as well as resources and materials provided within. They may also learn outside of the system using modes of informal learning, such as self-direct learning and incidental learning (Bennett, 2012; Marsick & Watkins, 2001; Schugurensky, 2000). If they are solving a complex problem, it is possible that
they reach a solution through what learning theorists call sudden insight or the a-ha moment (Bennett, 2011; Bowden, Jung-Beeman, Fleck, & Kounios, 2005; Chambers, 2007; McNamee, 2011). These modes of learning usually occur outside of formal learning boundaries.

The problem under investigation is the gap of understanding of how informal learning contributed to the development of community college adjunct faculty teaching online. Studying this problem may help shed light on the importance of informal learning and how it has enabled growth in faculty either outside of or in lieu of formal learning environments. It may assist in strengthening training opportunities by looking beyond heavily relied upon formal learning programs that by nature have a tendency to be restrictive based on time, date and location (Hachey, Conway, & Wladis, 2012; Jaeger & Eagan, 2009). While informal learning can invoke knowledge that has been stirring in the minds of online adjunct faculty, VHRD is the environment that has enabled this knowledge to be shared and learned by others (Bennett, 2012; Bennett & Bierema, 2010).

Even though the study focuses on online adjunct faculty, the findings can help redefine how training and support is approached within the workplace, especially in higher education. Furthermore, community colleges can learn to develop more efficient methods of formal training, while cultivating informal learning opportunities which may prove to be more important than formal learning ones. Even with a growing online educational system in the United States, only one in four teaching faculty participate in online instruction (Allen & Seaman, 2014; BSRG, 2011). Institutions will need to develop additional learning opportunities for adjunct faculty to ensure that their faculty base becomes knowledgeable and skilled within the online teaching environment.
Justification for the Research Problem

Significant amounts of research have been conducted within the field of online teaching. Many of these studies identified faculty barriers to entry, some explained the process of transition towards online teaching, while others focused on quality, standards and formal faculty development (Bedford, 2009; Kearsley, 2010; Mitchell & Geva-May, 2009; Palloff & Pratt, 2011; Stavredes, 2011). It is important to the focus of this study to understand how earlier struggles were overcome, while understanding how the field became much more formalized with its approach to faculty development.

Earlier studies of faculty development and training within online teaching revealed that the lack of faculty training, preparation and support were of great concern (Artman 2003; Betts, 1998; Dooley & Murphey, 2000; Schifter, 2000; Yap, 1996). The field addressed this lack of training and preparation by introducing formal learning programs to help advance faculty interests. Internally, learning programs were developed by institutions to address technology, online pedagogy, course management systems and instructional design, while external movements such as Quality Matters and The Online Learning Consortium focused on design, delivery, course development and more (Barczyk, Buckenmeyer, & Feldman, 2010; Picciano, 2012; Online Learning Consortium, 2014; Quality Matters, 2014; Wright, 2011).

Studies that focused on informal learning included Bentley (1998) who looked at learning beyond the classroom, Coffield (2000) who researched the necessity of informal learning and McGivney (1999) who reviewed informal learning within a community learning environment. Coffield (2000) stressed that informal learning should not be viewed as afterthought training, while Bentley (1998) explained the benefits of faculty learning outside the confines of a formal setting. Additional studies investigated the importance of informal learning in the workplace, but
they were not necessarily related to higher education (Boud & Garrick, 1999; Clarke, 2004; Cross, 2007; Schulz & Robnagel, 2010).

Other research examined informal learning within the contexts of social work (Gola, 2009), within teaching environments in grade school (Jurasaitė-Harbison & Rex, 2009; Lohman, 2006). Gola (2009) determined that individuals experienced a change in meaning as a result of implicit learning. Jurasaitė-Harbison and Rex (2009) discovered that teachers are more likely to engage in informal learning if their institutions promote professional interaction, if opportunities for outside collaboration are supported and if teachers view informal learning as an important part of their professional work. Lohman (2006) found that the presence of technology and support, coupled with an increased amount of unencumbered time throughout the day should be built into the workplace environment, in order for teachers to engage in and benefit from informal learning. The combination of technology, support and practice time reiterated the important partnership between VHRD and informal learning.

The most comprehensive informal learning studies have been conducted in the workplace, showing that is the most frequently used form of learning within the work environment (Boud & Garrick, 1999; Clarke, 2004; Cross, 2007; Schulz & Robnagel, 2010). Research within VHRD has examined topics such as culture, intranets and knowledge management (Bennett, 2009), human capital development and virtual work environments (Nafukho, Graham, & Muyia, 2010), and managing organizational competency and talent (Yoon & Lim, 2010). As VHRD environments are developed and cultivated, organizations are realizing a significant savings as far as the resources they have to dedicate to such initiatives (Fazarro & McWhorter, 2011). Despite inconsistencies in research, the aforementioned informal learning researches generally agree that informal learning is important to human development within a
variety of contexts.

**Deficiencies in the Evidence**

Existing literature has addressed many themes within online teaching and faculty development (Hartman & Truman-Davis, 2001; Luck & McQuiggan, 2006; Shea, 2007). Additionally, online adjunct faculty studies have investigated this population’s needs within the online teaching environment (Larcara, 2010), their concerns about teaching online (Hachey, Conway, & Wladis, 2012; Harrison, 2011; Pelz, 2004) and even how they are prepared to teach online (Andrew & Sofian, 2012; Gibbons & Wentworth, 2001; Lewis & Abdul-Hamid, 2006; Santovec, 2004).

However, little is known about how the arrangement of informal learning and virtual human resource development has helped adjunct faculty learn to teach online at community colleges. These individual voices and perspectives have not necessarily been accounted for. Previously mentioned research has tended to combine individual experiences into larger assertions, which overshadowed the importance of understanding the individual experience and the value of discrete understandings. These studies focused on the general workplace and not specifically on adjunct faculty teaching online.

The context of the study will target adjunct community college faculty and investigate their individual encounters with informal learning as they learned to teach online. This approach will seek to identify their individual accounts of informal learning and explain if and how these experiences provided sudden moments of insight or ah-ha moments. The study intends to fill the gap in the literature by looking beyond existing formal learning and training practices of adjunct online faculty, to evaluate the developmental impact of informal learning within a virtual human resource development environment of this group of educators.
Research Purpose and Questions

The purpose of this study is to understand how adjunct faculty developed professionally and learned to teach online through informal learning. Based on the intellectual goals, conceptual framework, and qualitative methodology of this study, three research questions were prepared as a foundation for this examination:

1. How did adjunct faculty learn to teach online through informal learning?
2. How did formal training encourage adjunct faculty to learn through informal means?
3. How, if applicable, did adjunct faculty experience moments of sudden insight when learning to teach online?

Significance of Research Problem

Understanding the influence of informal learning experiences on online adjunct faculty is critical to all institutions of higher education, especially to community colleges, who hire significant amounts of adjuncts (Goldrick-Rab, 2010). Online education continues to grow in the United States, with over 7.1 million students taking at least one course online in 2013 (BSRG, 2014). As institutions add online courses and programs to meet this demand, the learning and training opportunities they offer to faculty should grow in scope and focus. The need to encapsulate and understand informal learning as part of adjunct faculty development is great.

As online learning is viewed as an alternative form of learning, the methods in which faculty learn to teach online should be alternative as well. Studies continue to show a direct correlation between online faculty development and its impact on online student engagement, retention, and program sustainability (Betts, 2009; Dennen, Darabi, & Smith, 2007). By maximizing learning and development opportunities, community colleges can position their
adjunct online faculty to provide students with a very rich, inclusive and complete learning experience.

The continued global demand for online learning will impact online faculty development, by expediting the need to train faculty to teach online worldwide (Allen & Seaman, 2012). Existing, formal learning opportunities need to be re-conceptualized, since they will not be inclusive enough to develop the skills of online faculty, who maybe even more scattered (based on location) and more unreachable (due to multiple job responsibilities). Online adjunct community college faculty may seek these opportunities to enhance their experience, status and income. Faculty at any institution will be better positioned to accept online teaching assignments with greater readiness based on their interaction with informal learning opportunities. Understanding the potential of informal learning and the dimension it brings, can significantly contribute to the scholarship and practices of online teaching and adjunct faculty development (Burnstad, 2007).

The formal training programs currently available for online faculty are based on prescribed curriculum and rigid guidelines that move faculty quickly through the training process (Online Learning Consortium, 2014; Quality Matters, 2014). The programs offer little in the way of cultivating informal learning opportunities that encourage faculty to reflect, to draw upon their prior experiences or to reconstruct their personal understandings of information and knowledge (Merriam & Caffarella, 1999). By neglecting the potential benefits of informal learning, moments of sudden insight or ah-ha moments may go underutilized, without the realization and benefit to others. Likewise, these moments of insight may never become documented or shared with others, simply prolonging points of frustration and unattainability.

The results of this study may provide useful insight for higher education leadership
interested in expanding training and development opportunities for online adjunct faculty. Online education is no longer a fad or trend, so higher education leadership needs to understand how informal learning opportunities can help reshape how adjunct faculty learn to teach online (Artman, 2003; Perreault, Wladman, Alexander, & Zhao, 2008).

**Positionality Statement**

As a qualitative researcher, I will be the principal human instrument in this study. One of the basic characteristics of qualitative research is that the researcher serves as the primary instrument for both data collection and data analysis (Merriam, 2001). Researcher bias in the form of sentiment, opinion and experience is certainly of concern. In order to minimize researcher bias, I will respect and listen to the unique, individual perspective of each participant. My action as an advocate for the participants should help them feel more comfortable in disclosing their true experiences (Creswell, 2012). I plan to phrase questions from a neutral standpoint, paying close attention to my tone of delivery, to my body language and to my reactions when the questions are answered. I will utilize general inductive analysis that will naturally allow themes to emerge, without the bias of leading interviewees to predispositions (Merriam, 2009). I intend to identify myself as an administrator of the college, as well as a doctoral level researcher from Northeastern University.

I will be interviewing adjunct online faculty from community colleges within Pennsylvania and New Jersey. Reaching out to adjunct faculty from other community colleges will enhance this study by diversifying the participant pool, adding information and data that is much more robust and inclusive, as opposed to relying on the experiences of those from only one community college. As the director of online learning at a community college in the mid-Atlantic region of the United States and as a former distance learning and information technology
manager in the corporate world, informal learning has always played a role for me in the workplace. I have always viewed formal learning opportunities such as seminars and training sessions as helpful, but restrictive and very one and done, with little to no follow-up after sessions concluded. Whatever was learned was learned and whatever was missed was missed. I have often wondered how the knowledge I developed afterwards may have helped someone else learn and vice versa, if I had the opportunity and the platform to do so.

My experience and knowledge of online education over the past fifteen years, coupled with my experience with the community college and its faculty, has helped generate some of the questions that led to this study. My participation in online teaching and learning consortiums and related affinity groups has helped me understand that there is a significant gap in the development of adjunct online faculty. This struggle has remained for years and has been echoed by my counterparts at other community colleges. I have viewed informal learning as something that was significant and important in my own development over the years. I feel that it is imperative to develop expertise and knowledge and share this information with others in the workplace. While you may never know when someone else benefits from your findings, you will know immediately when you have the luxury of benefiting from someone else’s knowledge and insight. I know that adjunct faculty continue to learn and develop their skills to teach online, but how, when and where are they doing this?
**Definition of Terms**

**Adjunct faculty:** Faculty who teach less than a full course load (12-15 credits) each semester and are hired on a contingent, semester to semester basis.

**Ah-ha moment:** The point at which a clear and sudden understanding of how to solve or accomplish something becomes obvious and apparent (Bowden, Jung-Beeman, Fleck, & Kounios, 2003). Ah-ha moments are also known as moments of sudden insight.

**Community college:** A two-year state supported college that offers associate’s degrees.

**Course management system (CMS):** An educational software system that facilitates teaching and learning within an online environment, also known as learning management system (LMS).

**Face-to-face instruction:** Any instruction that takes place in a physical classroom at a designated time, with the presence of both students and instructor.

**Formal learning:** Learning that takes place within a very strict, confined and prescribed environment (Marsick & Watkins, 1990; Trinder, Guiller, Margaryan, Litteljohn, & Nicol, 2008)

**Informal learning:** An activity that involves the pursuit of knowledge, understanding or skill that occurs without the presence of externally imposed criteria (Livingstone, 1999)

**Online education:** Teaching and learning that takes place at a distance, over the Internet, where the instructor and student are separated by space and/or time.

**Virtual human resource development:** “A media-rich and culturally relevant web[bed] environment that strategically improves expertise, performance, innovation, and community building through formal and informal learning” (Bennett, 2009, p. 364).
CHAPTER TWO: REVIEW OF LITERATURE

The purpose of this study is to understand how adjunct faculty developed professionally and learned to teach online through informal learning. Based on the intellectual goals, the qualitative methodology of this study and the conceptual framework, the following research questions were formulated to inform this study:

1. How did adjunct faculty learn to teach online through informal learning?
2. How did formal training encourage adjunct faculty to learn through informal means?
3. How, if applicable, did adjunct faculty experience moments of sudden insight when learning to teach online?

Introduction

A significant opportunity exists for community colleges and universities to capitalize on the realization of informal learning and embed these benefits into practice, as part of their repertoire in preparing adjunct faculty to teach online (Hagar & Halliday, 2006). In order to maximize these possibilities, institutions should acknowledge and encourage the opportunity for informal learning to exist (Coffield, 2000). The learning environment should be conducive in promoting interactions and learning moments to transpire, away from the more formal learning environments that many institutions support (Bell & Dale, 1999). Informal interactions can occur within formal settings, such as at conferences or in courses, and these are increasingly occurring in virtual environments through online education.

Scope and Organization of this Review

This literature review will examine four interrelated bodies of literature: community colleges, online education, teaching in an online environment, and informal learning within virtual human resource development (VHRD). The review was driven by questions that sought to
discover the importance of informal learning and the role of virtual online environments in the development of adjunct faculty teaching online. In particular, questions of how faculty developed through informal means and how a learning management system (LMS) could be used as a source of learning for faculty.

Part one will utilize existing literature to explain the landscape of community colleges, including the history, the faculty, and the administration that make up these institutions. Part two summarizes the history of online education, and then explains the growth, benefits and limitations of the field. The third section develops an understanding of existing practices and the skills needed to teach online. Part four presents a review of virtual human resource development (VHRD), knowledge management, formal learning and informal learning within the four mode model re-conceptualized by Bennett (2012). Lastly, limitations within existing literature will be identified and information to minimize these gaps will be presented. Although significant literature exists focusing on formal training for online adjunct faculty (Maryland Online, 2006; Mitchell & Geva-May, 2009; Maryland Online, 2014; Picciano, 2012; Wright, 2011), little exists in the way of informal learning and the role it may play in preparing adjunct faculty at community colleges to teach online.

The literature review for this study utilized 132 resources, retrieved from sources such as ERIC, SAGE, EBSCOhost, Google Scholar, ProQuest and a local university library. Keyword searches included adjunct faculty, community college faculty, online teaching, e-learning, virtual human resource development (VHRD), informal learning, formal learning, knowledge management (KM), sudden insight and a-ha moment. The first section of this literature review will examine the history and structure of community colleges.
Community Colleges

There are approximately 1,655 community colleges in the United States (US Department of Education, 2014). Community colleges are often called junior colleges and differ greatly from universities (Ratliff, 2009). From a faculty perspective, universities typically focus on research and teaching, while community colleges are concentrated on teaching and learning (Bonham & Luckie, 2009). Community colleges allow students to take coursework equivalent to the first two years of undergraduate study, which typically leads to a 60-66 credit associate’s degree (Knapp, Kelly-Reid, Whitmore & Miller, 2006). Community colleges play a very distinct role in the landscape of higher education. This distinction also trickles down to the mission of these institutions, as well as to the people they employ (Bonham & Luckie, 2009). In order to better understand the responsibility that community colleges have in higher education, it is important to become familiar with the history and mission of these institutions, as well as with the faculty and staff that work at these institutions.

History and Mission

Developed out of economic downturn between the 19th and 20th centuries, community colleges were founded in 1901, with Joliet Junior College in Illinois as the first institution of its kind (Brint & Karabel, 1989). At the turn of the 20th century, as an influx of immigrants began to come into the United States, the need for two-year colleges became more apparent (Thelin, 2004). Unemployment and the Great Depression forced these colleges to focus on a more localized and affordable education, with training geared towards vocational and specific job needs (Dubrow, 2003). In 1947, two year institutions received significant support from President Truman and his commissioned report on higher education (President's Commission on Higher Education, 1947). It was this report that “devoted substantial attention to the public community
college as an institution crucial to ensuring universally accessible post-secondary education” (Thelin, 2004, p. 269). As World War II personnel returned to civilian life in the United States, the demand for higher education overwhelmed capacity, so the term community college was popularized. These colleges now assumed a much greater role, by providing a more comprehensive curriculum, which for the most part was now state funded (Ratcliff, 2010). The late 1960’s and early 1970’s were another major growth period for community colleges, which quickly became the center of educational opportunity in the United States ( Vaughan, 2006). The 1970s brought Title IV financial aid allocation through federal legislation that continued the expansion of access to higher education (Levinson, 2005). Throughout the 1980s and 1990s, community colleges continued to develop in rural areas and within city limits, by adding branch campuses and related services as they continued to serve a more diverse student body based on age, gender and ethnicity (Coley, 2000).

Today’s community colleges continue to be characterized by low tuition, flexible scheduling, online coursework and convenient locations, which are anchored by a very comprehensive mission statement (Jaeger & Eagan, 2009). The mission of these institutions is to serve all segments of society through an open-access admissions policy that offers equal and fair treatment to all students (Levinson, 2005; Reuben & Perkins, 2007; Vaughan, 2006). According to an American Association of Community Colleges (AACC) report, 36% of community college students are first generation, 17% are single parents and 12% are students with disabilities (AACC, 2015). The report also confirms that in 2014, 45% of the undergraduate student population in the United States was represented by community college students. Furthermore, community colleges understand that many of their students are under-prepared for college level work and many also have a higher risk of dropping out altogether. Almost 65% of students who
enter a community college need remedial coursework and lack the skills and knowledge to be successful within a postsecondary educational setting (Gibson & Slate, 2010; Bailey, 2009). Community colleges are led by administrators who run the operational side of the organization, who make important decisions that impact the welfare of these organizations.

**Community College Administration**

Community colleges are run by administrators whose roles are very different than those of faculty. Administrative decisions and perspectives are important to understand, as they often shape and influence the landscape of the community college (Levinson, 2005). While this is not the primary focus of the study, administrative perspective towards online education is important to contextualize. Community college directors, deans, assistant deans and vice-presidents are the ones who typically hire and evaluate faculty, as they allocate funds and maintain budgets for initiatives such as faculty development (Puzziferro & Shelton, 2009). Administrators and faculty have not always viewed online education through the same lens, with administration looking to advance online course development more rapidly than some faculty would have anticipated (Floyd, 2003; Rowell, 2010). McFarlane (2011) posited that organizational success in online education must begin with responsible leadership that understands and supports a dynamic and swiftly changing environment. Kouzes and Posner (2003) recommended that community college administration employ five effective leadership practices including modeling, challenging the process, enabling others to act, inspiring shared vision, and encouraging the heart. These tactics have a common theme, which is to help grow and nurture institutional progress, in one unified direction where administration and faculty act as one decision making body.

Besides being receptive to the flexibility and opportunity that online learning affords to students, college administrators in general have viewed online education as a medium that
addresses time and space constraints that have displaced students in the past (Mitchell & Geva-May, 2009). Along the same lines, Allen and Seaman (2014) found that approximately 75% of the institutions already offering online learning did so with hopes of increasing enrollment and leveraging their online initiatives as a strategic and competitive advantage. Secondary findings revealed the need to increase enrollment to attract a more non-traditional type of student, further enhancing flexibility, diversity and outreach. Howell, Williams and Lindsay (2003) identified 32 trends affecting distance education, most of which were geared towards institutional administrators, showing the pertinent decision making role they play. Key administrative trends included coping with infrastructure costs, student retention rates, technological fluency and the competitiveness of attracting lifelong learning students. Out of a national sample of 591 administrators and 4,564 faculty, the Babson Research Survey Group (2011) in conjunction with Inside Higher Ed determined several discrepancies of opinion between faculty and administration. Some of these differences included increasing online course offerings, to compensation, and work load. Almost 30% of faculty thought their institutions were pushing online education too much, as compared to fewer than 10% of administrators who felt the same. Only 30% of faculty thought they were compensated fairly for online instruction, while almost 60% of administrators viewed compensation as fair (Allen, Seaman, Lederman & Jaschik, 2012).

Community college administrators continue to view online education as an opportunity on three major fronts including cost containment, enrollment management and student diversification (Amey, Vanderlinden, & Brown, 2002; Moore & Kearsley, 2012). In order to uphold the mission of a community college, open admission must exist and tuition must be kept low, while course and program offerings should continually meet the evolving needs of the student population. In order to keep these commitments, online education has helped control
operating costs, by minimizing expenses related to traditional brick and mortar operations (Choi & Park, 2006). Examples include offering winter break online-only semesters or even by closing smaller satellite campuses that did not show the level of enrollments they once did (Pearson Foundation, 2011). Increasing enrollments means attracting new or different types of students, including first generation students, minorities, working students, students limited by geographic location, even those with life situations that may impact the pursuit of a traditional education (Fry, 2010; Hachey, Conway, & Wladis, 2012). As administrative decisions are enacted, faculty become a pivotal part of these plans and initiatives. Understanding the role that faculty play, is essential to this study.

**Community College Faculty**

Just as diverse as the student population found within many community colleges in the United States, the faculty at these institutions play very diverse roles themselves. Unlike many university level faculty, community college instructors do not conduct much in the way of research. They are mostly concentrated in teaching the curriculum (Floyd, 2003). However, faculty were also expected to assume the roles of academic advisor, tutor, coach and mentor for the students they teach and serve (Kuh, 2009). The American Sociological Association found that in 2010, there were over 400,000 full and part time community college faculty in the United States, which made up 40 percent of faculty members nationally (Rowell, 2010). Community college faculty are primarily comprised of part timers, which equals 70% of this workforce (American Association of Community Colleges, 2009). Part time faculty are defined as instructors who teach less than a full load of courses each semester (usually 9 credits or less), they are temporary and are on non-tenure tracks (Beckford-Yanes, 2005; Gappa & Leslie, 1993). The terms part time and adjunct are used interchangeably in this study. The trend to hire more
adjunct faculty at community colleges continues to rise, with some institutions having as much as 70% of their faculty within the rank of adjunct (U.S. Department of Education, 2014).

The strength of the community college is said to be its faculty, but little has been researched in the way of adjunct community college faculty teaching online. Existing literature about adjunct faculty reveals information such as the effectiveness of adjunct teaching (Webb, 2007), the roles adjuncts play in relation to full time faculty (Dedman & Pearch, 2004) and the rate of grade inflation based on the status of the faculty member (Kezim, Pariseau, & Quinn, 2005). The American Association of Community Colleges (2009) revealed that 5% of adjuncts hold terminal degrees and teach for a variety of reasons, including enjoyment and passion for teaching, the reliance on income, while some taught as adjuncts in hopes of gaining full time employment. A national study of 500 adjuncts conducted for the American Federation of Teachers revealed many interesting aspects about adjunct faculty, with 41% of them having eleven or more years of teaching at the same institution, 36% were over the age of 55, while 46% of these adjuncts were teaching within humanities and social sciences (American Federation of Teachers, 2010). Despite the growth of adjuncts, minimal research has been conducted over the past 20 years that has shed light on how this group of professionals learn (Fugate & Amey, 2008; Goldrick-Rab, 2010; Jaeger & Eagan, 2009). Twombly and Townsend (2008) noticed that only 11% of the articles published from six journals of higher education were about community college faculty. A recent search of ProQuest, which holds well over 3 million dissertations and thesis papers, only yielded 188 results for the key word search of “adjunct community college faculty”, 21 results for “contingent community college faculty” and 468 results for “part-time community college faculty”.

The extensive use of adjuncts at community colleges is by no means a recent
phenomenon, as these institutions have relied on adjuncts since their inception. Adjuncts play a pivotal role in understanding and responding to the needs of the local communities they serve. The Community College Survey of Student Engagement Report indicated that community colleges must find ways to increase support and development opportunities for their adjunct faculty, similar to those offered to full time faculty (Kuh, 2009).

Adjuncts are often employed in the same professional fields they teach, bringing a very versatile and dynamic approach to their lectures and lesson plans through engagement, interaction and connection to the real world (Golden, 2014; Wallin, 2004). Christensen (2008) highlighted the importance of building bonds between colleges and industry, enhancing the curriculum to meet real world expectations and the practical application of knowledge, as three primary advantages that adjunct faculty bring to the table. Strengthening opportunities with employers can be enabled by these working professionals, who maintain relationships in both the academic and professional worlds. Adjuncts that work in industry can help students connect theory with reality, which is an asset to the student learning process (Lyons, 2007). Community colleges typically hire adjuncts that live within their serving communities, who tend to have outreach and connections that can benefit the institutions and their students with opportunity (Wallin, 2004).

As the mission of the community college is essentially to serve all, adjunct faculty can be viewed as ambassadors of the college, recruiting students and unveiling opportunities that may not be as apparent to others, without their intimate knowledge. In addition, the image of the community college can be enhanced through these relationships, furthering the opportunity of internships and related job opportunities for students within a variety of disciplines and industries (Villagran-Glover, 2012).
The Center for Community College Student Engagement Report (2013) showed that adjuncts play a very large role in shaping student experiences and perceptions about academics, career paths and more. The report suggested that adjunct faculty need similar access to support and development as full time faculty, in order to close the gap between the two groups. A 2012 survey of faculty revealed that enthusiasm over online courses was received better by adjuncts with 52% in favor, as compared to full time faculty who favored online courses by only 39% (Allen, Seaman, Lederman, & Jaschik, 2012). While adjuncts may view online courses as an opportunity for growth, some full time faculty may be apprehensive or worried about a greater shift towards the online modality. The utilization of adjunct faculty does come with challenges and criticism.

The practice of hiring adjuncts to maintain cost efficiency has been a highly scrutinized practice. Unger (1995) argued that the practice of hiring adjuncts is highly unethical and exploitative and that institutions who predominantly hire adjuncts need a morality check. Further criticism explains that many adjunct faculty often seek to teach enough courses just to make ends meet, which takes a toll on their psyche, their motivation, and on their levels of productivity (Fugate & Amey, 2000; Grimes, 2005). Adjuncts have been described negatively by some in academia as the underclass of higher education, as classroom gypsies, as academic outcasts and as “roads scholars”; all terms used to describe their transient and disposable nature (Dolan, 2011; Tillyer, 2005).

As community colleges grow their online education programs, adjuncts may no longer be exclusively recruited from local communities, further complicating matters of recruitment, support and development (Dolan, 2011). As these institutions hire adjuncts from across the nation, the lack of social opportunities and in person interaction among adjuncts, as well as with
full time faculty and college administration may diminish further. Research has found that the exchange and sharing of ideas and experiences between adjuncts, full time faculty, and college administration helps foster formal and informal learning opportunities that are important to the growth of any organization (Gappa & Leslie, 1993; Morthland, 2010; Schnitzer & Crosby, 2003).

**Summary**

The community college has played a critical role in the development of education in the United States over the past hundred years. It has developed out of a necessity, to become a viable option for almost anyone who seeks an education past high school (Dubrow, 2003). The mission of the community college remains stable, as it began on the premise of being an open institution that accepts almost any students who walks through its doors (Bonham & Luckie, 2009). The past twenty years has shown how these institutions elevated their outreach by diversifying their students and their faculty, while venturing into online education (Fry, 2010; Moore & Kearsley, 2012). These institutions rely on two sanctions, administration and faculty, to carry out the immeasurable mission that guides these institutions (Levinson, 2005). The significance of correlating administrative responsibilities with those of the faculty is important to any organization of higher education. The two groups can balance quality decision making with quality course development in order to fulfill the obligations and promises of the institution (Yang & Cornelious, 2005). With such a reliance on adjunct faculty, the institutions should look for learning and development opportunities that help cultivate this group of educators (Webb, 2007). It is important to understand the role that online education has played within the landscape of higher education in just the past few years.
Online Education and E-Learning

The rise of online education and e-learning at community colleges has been enabled by technology and consumer demand (Sutton & Nora, 2008). As of 2007, 97% of community colleges in the United States have adopted online learning (Prasad & Lewis, 2008). Community colleges have embraced the concept of online education by offering more certificate and degree programs online to meet the change in demand by the public (Allen & Seaman, 2010). The shift to offer an online education has revealed both promise and concern for institutions that have historically operated to meet the needs of their local constituents (Cejda, 2010; McKenzie, Mims, Bennett, & Waugh, 2000). The second part of this literature review examines the history of online education, and then discusses the growth of the field itself. The advantages and limitations of online education are then explained to provide further perspective.

The History of Online Education and E-Learning

The notion of an online education, or attaining an education outside of a physical classroom, is not a recent phenomenon. Online learning, which is often used as a synonym for distance or distributed learning, has transformed itself out of correspondence and television courses which were alternative educational delivery methods of the past (Moore & Kearsley, 2012). Some attribute shorthand lessons as the first true distance education courses, dating back to 1728, when these courses were advertised in local gazettes (Holmberg, 2002). While this type of correspondence was facilitated by the postal system, newspapers were used as early as 1874 to provide educational opportunities to housewives and coal miners looking to better themselves through education (Rose & Blomeyer, 2007).

It was not until the 1950s that television and radio began to deliver these correspondence courses much more efficiently (Emmerson, 2005). Institutions such as the Western Reserve
University and the University of Wisconsin were on the forefront of this technology that extended to the use of telephones and audio recordings on tape (Holmberg, 2002). The year 1969 marked the debut of the British Open University, one of the first contemporary universities to offer distance education on a global scale (Holmberg, 2002). The 1970s and 1980s brought with them new technologies such as personal recording devices and cable television, which became more readily available to households in the United States (Rose & Blomeyer, 2007). It was the development of satellite and fiber-optics, coupled with the growth of computers in the home and office that led to the modern day delivery of courses over the Internet (Emmerson, 2005). As computers and transmission means became readily available, computer based training (CBT), through VHS tapes, CD-ROMS and satellite television were the precursor to online delivery, as these modes were able to deliver actual lectures and class happenings, some in real time (Holmberg, 2002).

Online education through the Internet has about a twenty year history. The field of online education does not have the luxury of drawing from an extensive history, but it does have the ability to reference previous distance teaching and learning modalities which it evolved from (Johnson, 2003). It was in the early 1990s, when the CALCampus was one of the first institutions to initiate the delivery of online curriculum through telecommunication networks and the Internet, took its computer assisted learning model from the personal computer to the online format (Morabito, 1999). This and similar efforts eventually lead many other institutions across the board to follow suit. While some traditional public and private institutions began looking at online education, it was the online for-profit institutions that really viewed online education as the future and as a competitive advantage (Gilpin, Saunders, & Stoddard, 2015). While the growth of online learning initially flourished within these institutions, more traditional
institutions including public and private, non-profit and for-profit began to grow their own online education programs.

**Growth of Online Education and E-Learning**

Since about the mid-1990s, the growth of online education has thrived. This forced many institutions to react to the increased demand for online higher education, which supported increased levels of accessibility, flexibility and a sense of convenience (Kinder, 2004). Internet access to the home or office became more increasingly available, thus bridging technology and education even closer together. While the notion of convenience and flexibility is not new to higher education, the way it was delivered certainly was. The Internet eliminated the need for students to visit the post office, to record televised lectures, or even visit a campus to accomplish certain requirements of a college level course (Chapman, 2009).

During the 2000’s the convergence of growing enrollment, continued cost containment practices and advances in technology have helped pave this path for growth in online education (Easton, 2003). In 2012, only 13.5% of the institutions of higher education in the United States surveyed by Babson Survey Research Group did not have any courses or programs online (Allen & Seaman, 2013). Even though 71% of these institutions had some type of online course offering in 2002, the greatest shift was in the number of degrees offered completely online. In 2012, 62% of these institutions offered at least one online degree, up from 34.5% in 2002 (Allen & Seaman, 2013). While most degrees were at the undergraduate level, many of these institutions began offering masters and doctoral level coursework completely online.

According to the Babson Research Survey Group (BSRG, 2014), 7.1 million students in the United States were taking one online course within higher education in 2014, an increase of 411,000 students from the year prior. Of these students, thirty two percent took more than one
course online. By comparison, in 2000, there were approximately 1.6 million students taking online courses (Driver, 2002). In only eleven years, this data shows that the online student population has grown 419%. This fundamental shift in access and delivery has forced institutions, departments and faculty to rethink and adjust to how they deliver their educational programs and courses. Community colleges have contributed to this growth, as 61% of community college students in a 2010 survey have taken at least one of their courses online (Pearson, 2011). Furthermore, the majority of chief academic officers at community colleges now view online learning as a critical component of their long-term strategy (Allen & Seaman, 2010).

As the field gained acceptance throughout the 2000s, institutions began to become more aware of how online offerings could meet the demands of a more diverse student body. This diversity was led by working adults, students returning to college to complete degrees, students in other states, as well as those around the world (AACC, n.d.). While administrators saw the impact on the bottom line, faculty continued to develop a sense of comfort with the online environment. When asked if faculty have made a recommendation to take an online course to a student or an advisee, over eighty percent of the faculty stated that they have (APLU, 2009). This study by the Association of Public and Land-Grant Universities received feedback from 10,720 respondents from 69 different institutions, a rather large sample size. As perspectives changed, online education went from being viewed as a trend to a relative mainstay at many institutions across the United States. Much of this shift in perspective was supported by the advantages that online education began to bestow on higher education.

**Advantages of Online Education and E-Learning**

Institutions with online education programs typically view their programs as ones that
deliver cost effective, flexible and convenient education opportunities. These advantages are similar to the core mission of the community college, which in short, is to serve all who come through its doors. The National Center for Educational Statistics recognized that community colleges offer online courses to support students that have family or work related constraints, those with geographic limitations, as well as those who need flexible scheduling (Prasad & Lewis, 2008). Furthermore, research shows that students with competing demands for their time, again due to family and work commitments, continue to show preference towards online courses. (Hagedorn, 2005; Skopek & Schuhmann, 2008). Today’s student, dubbed the “Net Generation”, has grown up with the Internet and technology, viewing the medium as a part of their education, lifestyle and everyday necessity (Hachey, Conway, & Wladis, 2012). Community colleges can leverage online education to grow their enrollment numbers, to contain costs and to take advantage of technological advancements.

**Growing enrollment and tuition revenue.** As state appropriations dwindle, community colleges will need to rely more heavily on tuition to survive. Tuition and fees at community colleges are up 24 percent beyond overall inflation over the past five years, according to the College Board 2012 Survey (Palacios, Johnson & Leachman, 2013). Community colleges can grow their tuition revenue by attracting non-traditional populations, especially those from underrepresented cultures, where barriers and restrictions have been an issue (Sutton & Nora, 2008). College students have accepted online classes as a viable method of pursuing their degrees. In a 2011 survey, nearly 66% of community college students were taking at least one course online and the number is expected to increase (Allen & Seaman, 2010; Pearson, 2011).

Community colleges do not seem to be limited by geographic parameters as in decades past. Instead of being restricted to their serving counties, community colleges are able to
leverage these developments to attract and expand new student markets. As they have with attracting international students, community colleges can attract diverse cohorts of students, which encourages a more inclusive and dynamic learning environment (Prasad & Lewis, 2008). While attracting students from outside of their jurisdiction was never a part of the community college’s mission, the overall value that this diversity brings to the institution is beneficial on multiple levels (Shannon & Smith, 2006). The open access policies are being taken literally, to now include any student, from any jurisdiction.

**Cost containment practices.** Times of economic stress and poor economic climates bring a reduction in appropriations to public colleges and universities. As tax revenue declines, so does the funding for these institutions. State governments are forced to balance their budgets by eliminating programs or by reducing funding for certain agencies, including to those in higher education. In turn, institutions combat these deficits by increasing student tuition rates, by expanding class size and by cutting programs (Xu & Jaggars, 2013). Rather than considering capital investments in the form of new buildings or campuses, some college leaders have invested in an infrastructure of support and technology that can then be shared throughout the college enterprise (Texas Higher Education Coordinating Board, 2011; Virginia Community College System, 2001). Especially at the community college level, institutions with online education have seen the ability to control costs by stabilizing future expenses such as building additional parking lots, classrooms and related facilities. Since many online students may not visit the campus as frequently as classroom students, if at all, the competition for courses offered at peak times, as well as the struggle to use campus resources is minimized (Bartley & Golek, 2004). As a result, classroom overcrowding is reduced, allowing institutions to scale course offerings up or down, while adding sections as needed (Pontes, Hasit, Pontes, Lewis, & Siefring,
Colleges can continue to assign adjunct faculty to help reduce instructional costs, as these additional courses or sections are added.

**Advances in technology.** Rapid technological advances have assisted the growth of online education over the past fifteen years. As faster Internet speeds became available, the wireless market along with its portable computing devices, were in high demand. During the 2000’s, cell phones became smart phones, offering users powerful and instantaneous access to information from the Internet. Most of this access is attributed to cloud computing, or the ability to store data and to perform powerful functions remotely, at a fraction of the previous cost (Bora & Ahmed, 2013). Additional benefits included instant software updates, improved compatibility between users and optimized computing environments that minimized the issues and technical glitches of previous operating systems.

The course management system (CMS) also referred to as a learning management system (LMS), has become the primary platform which delivers online courses. Like an operating system, a CMS/LMS offers an inclusive teaching and learning environment that has been the backbone of online education since the early 1990s. The release of FirstClass, the first officially recognized learning management system, began the trend which now has dozens of competitors (Ellis, 2009). These systems today are enterprise-wide solutions that provide integrated communication, centralized administration and personalized content, that focus on the reusability of content and information (Dykman & Davis, 2008; Vonderwell & Zachariah, 2005). Many institutions now utilize their course management systems to help support classroom teaching and learning initiatives, which has impacted how these classroom courses are designed and delivered (Wang, Doll, Deng, Park, & Yang, 2012). As with any positive advancement in online education, the limitations of online education should also be considered.
Limitations of Online Education and E-Learning

Online education does not come without limitation or concern. Retention, faculty perception and institutional commitment to faculty continue to be three major challenges that have raised concern within online education. Despite the lofty goals of online education, studies have shown that concern over high attrition rates, quality, legitimacy and faculty support still plague online education (Bragg & Durham, 2012; Jaggars, 2011; Johnson & Berge, 2012; Kizilcec & Halawa, 2015).

**Student attrition and retention.** The lack of student persistence in online courses continues to be problematic. Nationally, attrition rates in online courses range from 30 to 40%, approximately 7-20% higher than on campus classes (Hachey et al., 2012; Morris & Finnegan, 2009). Concern over the retention of online students has grown. Allen and Seaman (2013) showed a steady increase in the concern from chief academic officers in higher education. 41% of those polled are very concerned over the retention of online students, up from 27% in 2004. Many of these chief academic officers view this retention issue as a greater problem online than in the classroom.

Analyzing student entry into online courses is critical. Prior student experience in an online course has been found to be a worthy predictor of future online course success (Hachey et al., 2012). Community colleges tend to have underdeveloped support for students taking online courses, especially those who are taking courses for the first time (Bragg & Durham 2012; Hachey et al., 2012). Student understanding of online education varies greatly. Returning students, who tend to be of non-traditional age that are coming back to college, may experience technical anxiety and frustration, as they enter into an online environment that is different than their previous college environment and experiences (Saade & Kira, 2009).
Faculty perception. Teaching online is still an unfamiliar concept to some faculty. Studies have shown that some faculty prefer to teach and learn by the same methods they were taught (Bacow, Bowen, Guthrie, Lack, & Long, 2012). Skepticism over the effectiveness of online education, coupled with concern over lackluster data of online learning outcomes remains a point of concern among some faculty (Garza Mitchell, 2009; Saade & Kira, 2009). Research conducted over a ten year period of chief academic officers, shows a steady decline of how online course outcomes are perceived. Allen and Seaman (2013) found that this group believed that 42.8% of online course outcomes were somewhat inferior to classroom outcomes in 2003. In 2013, this number has been reduced to about 26%. While some of this perception is based on analytical data, some is based on casual conversations and informal interactions among peers.

Another perception is that by having students in a physical classroom, face to face, helps on a variety of levels. Herman and Banister’s (2007) study of a large university showed that faculty who were transforming courses from classroom to online, were most concerned about integrity, academic quality, rigor and interaction, all concerns that can be controlled in the physical classroom. Some felt that these concerns would be difficult to overcome through an online environment. Additionally, online courses have been perceived as disengaging, leaving participants isolated, rather than being connected in the classroom. Faculty concerns continue to linger over issues such as personal availability, individual student attention and on site office hours (Garza Mitchell, 2009).

Institutional commitment to faculty. As online learning continues to grow, institutional commitment and support for online education varies dramatically from institution to institution. Commitment for online education means an additional investment into faculty, through technology, support and training. Puzziferro and Shelton (2009) advocated that administrators
need to institutionalize faculty development as it pertains to technology, pedagogy and online teaching readiness. They defined online faculty support as a process of change and transformation, far from a simple, one time training effort. Their very systematic approach to faculty development acknowledges that new and re-conceptualized values in higher education that have been revolutionized by online education. Rio Salado College in Phoenix, Arizona boasts less than a 5% turnover rate among its adjunct faculty through its innovative faculty commitment practices (Smith, 2007). Recruiting online faculty is difficult, but retaining faculty is just as critical, especially to the contribution of a quality online program (Ragsdale, 2011). Research shows that keeping online faculty interested and motivated helps prevent burnout, while protecting institutional integrity and its reputation (Dolan, 2011; Ragsdale, 2011).

**Summary**

While the history of online education is relatively short, the rise and growth of online education has been swift and unprecedented. Online education has revolutionized the means and the methods of delivering an education. While it has evolved out of earlier alternative delivery methods, online education has brought with it instantaneity, unlike its predecessors (Holmberg, 2002; Rose & Blomeyer, 2007). The growth of online education in just the past ten years has been rapid, but steady, with many institutions bringing new courses and entire programs online, as a way to distinguish themselves from the competitive field of online education (Allen & Seaman, 2013). Some institutions entered into online education haphazardly, while others accepted it as a strategic advantage earlier than some. The promise of online education has allowed institutions to react to consumer demand quickly, while expanding its outreach to a new audience of students. While limitations have been reduced over the years, concerns still exist over certain aspects of online education, which may or may not diminish over time (Bacow et al.,
2012. There are a variety of skills that are needed for faculty to successfully teach online, which will be discussed in the next section of this review.

**Skills Needed to Teach Online**

The role of the online instructor is fundamentally different than the role of the classroom instructor. The traditional lecture style class assumes that the instructor is the sole focal point of knowledge, while in an online course the instructor becomes just one of the many learning resources available to students (Garza Mitchell, 2009). This paradigm shift is monumental, because the instructor is now a facilitator of learning, giving up some degree of control and command typically found in the classroom (Palloff & Pratt, 2007). The current online teaching environment relies on faculty to possess certain technological and behavioral skills that are guided by nationally recognized standards and best practices. These skills and practices are then influenced by way of training and development that is aimed at overcoming the barriers associated with online teaching. This part of the literature review will provide a contextual perspective of online teaching practices and standards, and then analyze the technical skills and behavioral expectations needed to teach online.

**Best Practices and Standards**

The progression of online teaching now has distinct levels of expectation, set forth by individual institutions, by accreditation agencies and by nationally recognized organizations. Quality Matters (QM) and The Online Learning Consortium (OLC) (formerly known as The Sloan Consortium or Sloan-C) are two standing examples of how the field of online teaching has advanced through the development of standards and best practices. Both programs are formal training opportunities that allow faculty to gain a better understanding of expectations and practices that are best suited for online delivery. QM has trained over 23,000 faculty and has
membership of over 800 institutions, geared towards preparing faculty teach online (Quality Matters, 2014). Specifically, the QM initiative was commissioned to create a replicable inter-institutional continuous improvement model to address the quality of online courses from a faculty perspective (Maryland Online, 2010). The movement helped bring legitimacy the online teaching field, as it provided a strategy for faculty to follow, while improving self-efficacy, motivation and attribution (Sener, 2007).

Wright’s (2011) empirical study of faculty who participated in the initial QM workshop showed statistically significant increases in their perception to design, develop and deliver an online course. The linkage between perception and training was strong, since the faculty clearly attributed the QM workshop to the change in their attitude and commitment towards online instruction. The OLC started to fund online teaching and learning projects as early as 1992, helping to establish the Penn State World Campus, as well as the Maryland University College (Online Learning Consortium, 2014). Both organizations offer certificate of completion credentials through workshops and seminars. These organizations have helped shape today’s online teaching environment by establishing a nationally recognized presence of expectation (Mitchell & Geva-May, 2009). Common themes addressed in these programs include course design, course technology, learner support, accessibility and assessment (Barczyk, Buckenmeyer, & Feldman, 2010; Picciano, 2012). In addition to learning how to teach online, faculty need to develop a few technology skills as well.

**Technology Skills**

Fifteen years ago, Dewar and Whittington (2000) identified the necessary technical skills as those including keyboarding, file management and word processing, as well as familiarity with personal computers, a course management system, and connecting to the Internet. This
original skill set has transformed into a much more demanding one, as advances in technology have significantly changed during this time. In order to teach online, faculty must become adept in using various technologies in order to build and design their online courses. These skills have grown in scope and demand over time. Ray (2009) studied 111 faculty who were currently teaching online. The majority of these participants were in favor of mandating training and development for faculty before they started teaching online. Some of the skills identified in the study were technology, online course design and effective instructional practices. Another study revealed that the lack of training and support for online faculty can actually hold back their initiatives to develop high quality online courses (Koehler, Mishra, Hershey, & Peruski, 2004).

Online education has formed a reliance on learning management systems (LMS) and related platforms. These software platforms have altered how faculty organize and present their coursework and curriculum. Once reserved for only the most technically competent faculty, the LMS has become a dominant element within higher education as well as the technical force behind online teaching and learning (Choi & Park, 2006; Ellis, 2009; Morgan, 2003). The LMS has also made its way into the traditional classroom setting, allowing faculty to extend or supplement their classroom initiatives and activities (LeNoue, Hall, & Eighmy, 2011). A study of 173 higher education faculty has revealed that faculty who use the LMS at rudimentary levels, actually limit opportunities to maximize student learning (Arnold, 2007). However, when faculty are able to utilize many features of their LMS and are trained to do so, they can better measure and improve student involvement and learning patterns (Beer, Jones, & Clark, 2012).

Today’s online faculty need to be aware of existing as well as emerging technologies that can influence how their online courses are designed and developed. The use of multimedia through audio or video lectures has become a norm within many online courses, requiring faculty
to become familiar with lecture capture and recording software (Palloff & Pratt, 2007). The use of multimedia in online courses may continue to be highly regarded because it mimics the same dynamics that are often associated with high quality, detail oriented classroom based instruction (Gaytan, 2006; Puzziferro & Shelton, 2009). The availability of speech recognition software and the increased industry focus on WYSIWYG (what you see is what you get) interfaces have dramatically cut down on the need for keyboarding or typing skills, lending way to a more point and click, drag and drop type of environment (Simonson, Schlosser, & Orellana, 2011). However, faculty need to develop a level of competency in being able to recognize and understand the functionality of icons, tabs, buttons and other navigational options that have become a staple within many software packages.

Emerging technologies developed by textbook publishers such as exam building tools, online learning object libraries and digital asset collections have forced the development of Learning Tools Interoperability or LTI (Sarraipa, Baldiris, Fabregat, & Jardim-Goncalves, 2012; Stavredes, 2011). Developed in 2010, LTI is a universal tool that seamlessly integrates various resources that make up an online course. In recent years, textbook publishers have developed their own online learning object libraries, persuading faculty to develop yet another technical skill of importing or linking to these assets. An example of such effort includes the MyLab initiative from Pearson Education, (Pearson, 2015). Faculty who chose to adopt these digital course materials should understand how they interact with their institution’s LMS and become confident in how to troubleshoot obstacles to integration, functionality and capability (Tay & Allen, 2011).

Synchronous online environments, which allow the instructor to teach in real time, has been on the rise, increasing the need to develop technical presentation skills within a live
environment (Kim & Bonk, 2006; Stavredes, 2011). Live environments rely on faculty to incorporate technical knowledge to ensure a functional and stable modality of live delivery. Faculty who venture into this environment must know how to use hardware (webcam and microphone), they must know how to use software (start and record the chat room) and then understand how to manage and control the live chat environment where students are remotely located (Casey, 2008). Ertmer (2005) recognized that faculty apprehension in live online environments is understandable, so any technical skills that faculty should learn must be taught at incremental levels, where confidence is built up through successful experiences.

Building familiarity with assistive technologies and understanding universal course design (UCD) have become essential to online faculty (Barczyk, et al., 2010; Mitchell & Geva-May, 2009). Since the 1990’s, the Assistive Technology Act, the Individuals with Disabilities Education Act, the ADA and Section 508 of the Rehabilitation Act have all set a national priority about the importance of making content and curriculum available to those with disabilities (Seale & Cooper, 2010). These laws not only helped increase public and professional awareness, but they also established guidelines and practices on making coursework accessible as a matter of equity for people with disabilities (Carlson & Ehrlich, 2006).

These laws have reshaped online course development with strict standards that require online course development to follow sixteen very distinct rules for displaying web based information (Spellings, 2006). Examples include creating a transcript or text equivalent for any non-text element such as for audio or video lectures, the need for all electronic form fields to be equipped with directions or cues and for all frames and tables to be properly headed and titled.

Universal course design (UCD) is a concept that was developed by the Institute on Disability at the University of New Hampshire, in partnership with the University of
Massachusetts (Gargiulo & Metcalf, 2012). UCD promotes principles in instructional design that assist faculty in building an online course that is equitable, flexible, intuitive and inclusive to all students, where they are able to address a variety of learning differences (Parker, 2012).

Instructional design is defined as “a systematic and reflective process of translating principles of learning and instruction into plans for instructional materials, activities, information, resources and evaluation” (Smith & Ragan, 2005, p. 4). The instructional design process helps build structure within an online course, while it encourages the planning out of instructional events that lead to an arrangement of learning procedures and resources (Chen, 2007; Gagné, Wager, Golas, & Keller, 2005). UCD is primarily taught in a formal, classroom environment by those skilled in instructional design principles (Reiser & Dempsey, 2007; Ye, 2014). In addition to technical proficiency, there are expectations of behavior that lend themselves to online teaching.

**Expectations of Behavior**

The online teaching environment also requires a set of soft skills or expected behaviors, which benefit faculty. Research shows that institutions of higher education must help online faculty develop these soft skills, because these skills help impact student communication, retention and engagement positively (Chen, Lambert, & Guidry, 2010; Daymont, Blau, & Campbell, 2011; Joyce & Brown, 2009). Bailey and Card (2009) studied the practices of experienced online faculty which uncovered eight themes, seven of which based on behaviors and soft skills, while only one was based on technology. Dubbed the second generation of e-learning, Adams and Morgan (2007) stressed the importance of soft skill development in online learning, stating that many faculty were stuck in the first generation mindset, where a technology driven approach was dominate.
Adapting teaching behavior allows faculty to better understand and adjust their style to the expectations of availability, communication and presence (Puzziferro, 2009). Availability in an online course means that the faculty member has established a consistent timeframe of when they are accessible to their students, typically online and within real time. Mandernach, Donnelli, Dailey and Schulte (2005) highlighted the importance of availability by explaining how some institutions use the availability factor in student online course surveys and in online instructor evaluations. Availability is sometimes associated with response rates and how frequently online faculty communicate with their students.

Studies have shown that solid online course communication between faculty and students exemplifies clarity, precision, timeliness, consistency and respect (Mandernach et. al, 2005; Rodgers, McIntyre, & Jazzar, 2009). The notion of respect lends itself to both communication and feedback, with the understanding that faculty will continue to work with diverse populations of. In order to address diversity and differences among students, Hannon & D'Netto (2007) found that cultural inclusivity should be considered well before hand within the design phase of an online course. This inclusive practice can then set the tone of expected faculty behavior that is sensitive, considerate and meaningful (Mandernach et. al, 2005).

Another essential behavior is the notion of presence. Pelz (2004) explained presence in three distinct categories as they relate to the activity levels of an online instructor:

- Social presence, the intended projection of the instructor that shows their personal characteristics during discussions, communication and feedback.
- Cognitive presence, the ability to construct and confirm meaning through sustained discourse, allowing faculty to infuse factual, conceptual and theoretical knowledge.
Teaching presence, the facilitation and direction of cognitive and social presence, in order to produce meaningful and worthwhile learning outcomes.

Collectively, the three aspects that define online presence help an online instructor direct and facilitate the learning process for their students. Online presence is a very intentional behavior that harmonizes behavior, allowing the online instructor to transition their own conduct of expectation to meet those of the evolving online environment. Faculty demonstrate their presence by engaging in activities such as regularly communicating with students, providing pertinent feedback, leading class discussions, holding virtual office hours, utilizing social media for announcements and sending timely reminders (Aragon, 2003; Lehman & Conceicao, 2011).

A case study by Baker and Edwards (2011) investigated two universities in Texas that showed a holistic approach to which faculty could develop their online presence. In addition to formal, how-to training sessions, the authors found that facilitating faculty based roundtable discussions, learning communities and peer mentoring opportunities were efficient ways of helping faculty develop their online presence. Several empirical studies have emphasized that faculty’s presence and active participation influence student’s participation positively (Leeds, Campbell, Baker, Ali, Brawley, & Crisp, 2013; Morris & Finnegan, 2008; Porter, 2013). The notion of presence emerged from the concept of social presence developed by Short, Williams, and Christie (1976) and out of immediacy established by Mehrabian (1967). Both concepts were used in the classroom to improve the quality of communication through socialization and to minimize the distance between teacher and student.

**Summary**

The current online teaching environment offers formal training opportunities by nationally recognized organizations, intended to help develop faculty to teach online. These
formal, prescribed training opportunities allow faculty to learn how to teach online in a very systematic fashion. QM and the OLC have assisted institutions in formalizing best practices and rules of engagement for their online faculty, as evidenced by the number of member institutions that have subscribed to this movement. Since the backbone of the online environment is technology, online faculty should continue to develop their proficiency with and adaptability to technology such as learning management systems and assistive software. Online teaching involves a different set of soft skills, as compared to those in a traditional classroom. The skills of availability, communication and presence seem to more preventive in nature, meant to address problem before they occur (Anderson, 2008; Stewart, Bachman, & Johnson, 2010). The culmination of these practices and skills is important to theorize, in order to understand how faculty learn and develop these skills for implementation. The last section of this literature review will describe how faculty learn and develop knowledge through formal and informal means.

**Faculty Learning and Development in Virtual Human Resource Development**

The final part of this literature review will discuss the innovative field of virtual human resource development or VHRD, as it relates to faculty learning and development. Faculty development is a special type of human resource development (E. Bennett, personal communication, March 10, 2015). HRD or human resource development provides a broader view of development, including career trajectory, and how systems need to be changed or built to support the learning, development and performance of organizational members. Definitions of HRD by McLagan (1989) and Swanson (1995) seem to identify performance as the outcome or end result of HRD, which is enabled by training and developing personnel on a very broad scale. McLagan’s (1989) definition of HRD recognizes the role that an organizational system, both
technology and structure play in developing an organization’s members, such as adjunct faculty.

Therefore, HRD is about learning and performance, which helps adjunct faculty learn and grow. Two studies showed how the learning and development of online adjunct faculty was improved by building and nurturing connections to their development process. Gaillard-Kenney (2006) explained the importance of supporting online adjunct faculty through mentorships, while Puzziferro and Shelton (2009) lauded how frequent communication with adjunct faculty helped them understand the environment they worked in. Since HRD provides a robust view of development, the connection between adjunct faculty development and HRD is multifaceted. This connection includes their ability to develop individually through learning (training programs), their ability to stay in touch with the college environment (news and upcoming events) and to advance their own career prospects (job openings, human resource seminars).

A brief perspective of VHRD is presented to better understand its origins and value to the field of human development. The review will then be followed by an examination of knowledge management, formal and informal learning and the re-conceptualized four mode model of informal learning (Bennett, 2012). VHRD and its partnership with the learning process are important to understand. VHRD encourages interaction and learning between individuals, while it helps learning activities to continually progress (Chung, Li, & Jeff, 2013). With the increase of technology and the need for continual update of skills, VHRD provides an efficient and effective learning process that helps eliminate large gaps in learning goals (Valverde, de Lera, & Fernandez, 2010).

**Concepts in Virtual Human Resource Development**

Virtual human resource development (VHRD) is a developing area of inquiry that has emerged from the practice of human resource development (HRD). Human resource
development has been well established as a process that includes a wide array of activities that help cultivate personnel and talent within any organization of people (McLean & McLean, 2001). VHRD looks at the overall environment in which the individual, group or the organization as a whole can learn and develop (Bennett, 2010). Part of the development may include improving the performance of online faculty, which can be measured by evaluations or student feedback.

VHRD began to take shape in 2006, based on an empirical study that solidified the importance of organizational culture and intranet technologies, identifying how culturally relevant intranets were the enabling factors of virtual human resource development (Bennett, 2006), and this idea was extended through an analysis of connections between organizational culture and knowledge management theories (Bennett, 2009). A learning management system such as Blackboard™ can be a virtual environment, and it can also function as an intranet, where faculty resources are posted in a faculty-only section, or as connected to the larger college technology systems that include links to other resources, services and software programs.

The term VHRD was introduced at the Academy of Human Resource Development by McWhorter, Mancuso and Hurt (2008), which was built upon Swanson and Holton’s definition of HRD (2001). Bennett (2009) defined VHRD as “a media-rich and culturally relevant web[bed] environment that strategically improves expertise, performance, innovation, and community building through formal and informal learning” (p. 364). It is important to break down and understand the definition of VHRD in its entirety.

A media-rich environment is one that contains sound, video, pictures, virtual simulations, tutorials and related multimedia content that allows faculty to interact with objects in which they learn from (Bennett, 2010). For adjunct faculty this could mean access to how-to tutorials, online
course policies and procedures, even virtual demonstrations about setting up courses within the learning management system. A culturally relevant environment is an environment that strategically aligns individuals, groups and the organization with beliefs and values that are generally shared throughout an enterprise. In addition, culturally relevant environments promote inclusion, a sense of belonging and community building, where learning conditions are improved and learning capacity is increased (Bennett & McWhorter, 2014). Adjunct faculty who are not able to engage in on campus training due to various restrictions can benefit from being part of an environment where information is strategically available to them with minimal constraint. The term *web[bed]* means connection, where people, objects and information are connected through technology, allowing them to collaborate, share and learn (Bennett, 2009). This connection can help adjunct faculty build collegial relationships that reach far beyond their existing contact base. VHRD enables faculty to build their expertise in areas such as online teaching and course delivery. The notion of innovation allows faculty to not only look up information, but it also allows them to contribute and create new techniques to course development and delivery. VHRD can help drive innovation by bridging people, objects, ideas, tasks and practices together, by spurring creative solutions to problems (Bennett, 2014).

The formal learning aspect of VHRD includes any certification processes or training that a college requires faculty to complete. Informal learning includes other forms of learning where faculty learn by trial and error, by reading a book, by asking for help, by learning from student feedback and by learning from other faculty.

This VHRD environment is meant to support optimal learning, performance and growth, of both the individual and the organization. VHRD inspires the heuristic transfer of learning, where the development of knowledge, skills and perspectives can be quickly transferred to the
job performance (Bennett, 2010). Adjunct faculty are developing their skills through VHRD, through the process of interaction. Therefore, the students they are teaching are also developing skills that maybe transferred to other organizational environments such as their workplace.

VHRD is also viewed as a process of change, since learning itself is about change (Bennett, 2009). The application of VHRD can target individuals as well as organizations to build learning capacity. Training and career development are two features of VHRD that are targeted towards individuals. Bennett (2009) highlights the important role of learning management systems and intranets in VHRD training and couples examples such as technologically driven role-play and simulation which represent a true multimodal approach to learning.

VHRD represents a paradigm shift within the field of HRD, as new skills, theories and policies will drive and revolutionize workplace learning and development (Bennett & Bierema, 2010). From a historical perspective, HRD focused on a narrow flow of information that was restricted by location and time. HRD was a very planned, structured and formal type of environment. With the rise of technology, social learning and knowledge sharing via the Internet, knowledge can now be generated, developed and captured by almost any level of the organization at almost any time (Hanandi & Grimaldi, 2010). Delello and McWhorter (2014) show the rise in social media use in education to be one for collaboration, where learners share ideas and discover new knowledge. The differential implications that VHRD brings to the table are those that will fundamentally change core learning practices, where knowledge flow will become broadened, spanning the entire enterprise, while learning at the individual and group level will continue (Bennett, 2014). This level of learning has been described as a continuous learning life cycle, where improvement, learning and human development just happen all of the
time (Hanandi & Grimaldi, 2010). As the workplace becomes more of a 24/7 environment, employees will need to find balance between work and family life. Thomas (2014) explained the role of VHRD and the 24/7 learning environment it will create, that will balance and bridge practitioners together to learn from each other as they build their competences and skills. Institutions will no longer require their adjunct faculty to attend training and development sessions in person at specific times, in favor of just-in-time or JIT learning. JIT is learner driven where learners create their own learning agendas at a place and pace that is appropriate for them (Anderson, 2008; Brandenburg & Ellinger, 2003; Marks, Sibley, & Arbaugh, 2005).

VHRD has already produced promising results in terms of saving time, more efficient development and delivery of training, improved organizational ecology and an optimal utilization of human capital in the workplace (Bennett & Bierema, 2010; Nafukho, Graham, & Muyia, 2010; Short, 2010). Bennett and Higgins (2016) suggest that medical education has broadened in scope beyond a clinical activity to include more systems based learning. With the growth of distance learning, virtual simulators and other instructional technologies, VHRD has the potential to support learning environments for health care and other fields where ongoing learning is imperative (Bennett, 2014; Bennett & McWhorter, 2014). Additionally, individual learners who have experienced difficulty learning within large, formal environments may see their social and learning anxieties diminish within VHRD (Garcia-Ruiz, Edwards, Aquino-Santos, El-Seoud, & Vargas-Martin, 2011).

VHRD has been labeled as an environment (Bennett & Bierema, 2010) and as a process (Huang, Han, Park, & Seo, 2010; Mancuso, Chlup, & McWhorter, 2010). These classifications exhibit two fundamentally rooted concepts, which are important components of VHRD. They are knowledge management, formal learning and informal learning.
Knowledge Management

Knowledge management or KM is defined as the process or practice of creating, acquiring, capturing, sharing and using knowledge to enhance learning and performance (Lank, 1997; Scarborough, Swan, & Preston, 1999). Although elements of KM were developed in the 1940s, KM was popularized in the late 1990s through studies that showed the profound impact that organizational culture had on knowledge management (Hasan & Gould, 2001; O’Dell & Grayson, 1998; Schultze & Boland, 2000). Additional KM related studies focused on the effect of organizational culture on knowledge sharing behaviors (DeLong & Fahey, 2000), while Gold & Arvind Malhotra (2001) investigated the influence of culture on the capabilities provided by knowledge management.

Sharing and connecting are two important social aspects of KM which are elements central to VHRD. Bennett (2009) posited that VHD was at the intersection of organization culture (such as values) and knowledge management. Knowledge, including cultural knowledge, can be conveyed through technology through the use of video clips, colors, stories and symbols. An adjunct faculty member may learn about what the college values in good online teaching by interacting within the virtual environment. This intersection of culture and VHRD assists in the process of assimilation which allows new online learner experiences to be combined with preexisting knowledge about learning to develop new knowledge (Gold, 2001; Ward & Benson, 2010).

KM theorists typically identify knowledge as tacit or explicit (Davenport, De Long & Beers, 1998). Tacit knowledge is the unspoken knowledge that inhabits people’s minds and is usually difficult to articulate to others (King, 2009). O’Dell and Grayson (1998) describe tacit knowledge as the underutilized knowledge that has been developed over time, to the point that
even “the organization does not know what it knows” (p. 154). Tacit knowledge is extremely valuable due to its personalized context, which is based on insight and experience (Dalkir, 2005; Hansen, Nohria, & Tierney, 1999). Explicit knowledge is knowledge that has been documented or captured, then codified in the form of rules, tools and processes (Leidner, Alavi, & Kayworth, 2006). While explicit knowledge is demonstrated by procedures and controls, tacit knowledge is typically shared through informal social groups, storytelling and improvisation (King, 2009). The process of externalization takes tacit knowledge, makes it visible and converts it to explicit knowledge, where it becomes tangible and permanent (Dalkir, 2005; Menon & Pfeffer, 2003). A primary example of externalization is the writing of reports at the conclusion of a project that shows the lessons learned during the process (King, 2009).

The relationship between KM and VHRD is an important one to understand. As available information continues to evolve through technology and innovation, organizations can guard against the loss of expertise (when someone leaves their position) by increasing internal capabilities to develop individual knowledge into organizational knowledge (Gourlay, 2000). This is valuable to any workplace, especially within higher education. The temporariness of adjunct faculty, coupled with an increase on the reliance on technology, shows how KM needs to be viewed as an enterprise wide strategy, where knowledge is managed, utilized and taken care of (Wiig, 1999). Studies have shown that less than 20% of knowledge already within an organization is captured, while less than 20% of this knowledge is ever retrieved in helping combat situations or problems that arise (Fruchter & Demian, 2002). The value of KM to VHRD is solidified by the role of formal and informal learning.

**Formal and Informal Learning**

VHRD is central to learning and interacting with information and knowledge typically
found in learning management systems and other college resources. Formal and informal learning are central processes in VHRD, and informal learning is theorized to be the larger partner of how learning in VHRD occurs (Bennett, 2009; Bennett, 2010; Bennett 2014a). Marsick and Watkins (1990) defined formal learning as learning that is supported and planned for by the organization. Like HRD, formal learning is highly structured, it is usually led by an instructor and is developed and taught based on a set of fixed learning objectives (Bennett & McWhorter, 2014; Marsick & Watkins, 1990). As a result, the curriculum that is developed to meet these objectives is usually strict or prescribed. Examples of formal learning include participating in a seminar, taking a class, or attending a training session. Higher education courses represent formal learning. To learn to teach formal classes in an online format, adjunct faculty may participate in formal classes sponsored by the college or outside of the college to develop their skills for teaching online. What may get missed is the recognition of how faculty need to learn through informal means, such as through practice.

Informal learning is everyday learning that takes place in a natural setting, with or without the learner even knowing that actual learning is taking place (Bennett, 2010; Marsick & Watkins, 1990). Livingston (1999) described informal learning as an activity that involves the pursuit of knowledge, understanding or skill that occurs without the presence of externally imposed criteria. Some examples of informal learning include mentoring, networking, coaching and performance planning reviews (Marsick & Watkins, 2001). In order to enhance informal learning opportunities, Marsick and Watkins (2001) emphasize these conditions:

- Critical reflection to surface tacit knowledge and beliefs
- Stimulation of proactivity on the part of the learner to actively identify options and to learn new skills to implement those options
• Creativity to encourage a wider range of options

These conditions can be developed and embedded into practice to ensure that higher education institutions are propagating informal learning instead of hindering it. Instituting a reflection forum or providing an outlet where faculty can share creative ideas are two practices that can be adopted to promote informal learning opportunities.

Earlier studies showed the importance of informal learning prior to the Internet, where people acquired much of their knowledge from daily experiences and interactions (Tuijnman & Bostrom, 2002). Informal learning has connections to other learning theories such as experiential learning (Andresen, Boud, & Cohen, 2000) self-directed learning (Candy, 1991), reflective learning (Boud, Keogh, & Walker, 2013) and workplace learning (Watkins & Marsick, 1996). Although both formal and informal learning play a role in VHRD, informal learning has been viewed as a much stronger partner in VHRD because of the vast amount of information and communication that has been unleashed by advancements in technology (Bennett, 2009a).

**Informal Learning and the Four Mode Informal Learning Model**

Informal learning is learning that is derived from the experience of daily life (Malcolm, Hodkinson, & Colley, 2003; Merriam & Caffarella, 1999). Informal learning plays a very important role in learning science (Ramey-Gassert, 1997). Coffield (2000) contended that informal learning should no longer be viewed as an inferior form of learning whose main purpose is to act as the precursor of formal learning. While some advocate for informal learning as an important form of learning (Foley, 1999; Hager & Halliday, 2006), others feel it can only be successful if used in conjunction with formal learning (Bell, 1997; Cofer, 2000). Eraut (2004) displaces these viewpoints by acknowledging that informal learning is so prevalent that it occurs within and around formal learning programs. Informal learning is not just a precursor to formal
learning, but it flows through formal learning and after it as well (E. Bennett, personal communication, March 10, 2015). Leadbeater (2000) declared that when too much learning within a formal environment occurs, people lack the opportunity to learn within the context where the knowledge is deployed, in order to solve problems and add value to perspective.

Several studies have shown the value and importance of informal learning. Bentley (1998) looked at learning beyond the classroom, Coffield (2000) researched the necessity of informal learning and McGivney (1999) reviewed informal learning within a community environment. Furthermore, numerous researchers have claimed informal learning to be the most frequently used form of learning in the workplace (Boud & Garrick, 1999; Clarke, 2004; Cross, 2007; Schulz & Robnagel, 2010). However, informal learning is not as well researched in adult and higher education as it has been in the workplace. Existing literature shows informal learning research within social work (Gola, 2009) and with grade school teachers within the classroom environment (Hoekstra & Korthagen, 2011; Jurasaitė-Harbison, 2009). Lohman (2009) researched informal learning within the information technology field and found that conversations, sharing of resources and experimenting with new techniques were commonplace.

To reiterate, informal learning is a strong partner of the learning process within VHRD, because of the frequency of interaction between the learner and the virtual environment (Bennett & Bierema, 2010). This increased level interaction is enabled and supported by technology and the Internet, where information and learning are taking place rapidly and continuously.

There are four different types of informal learning that take place, based on conscious and intentional activities as developed by Schugurensky (2000) and re-conceptualized by Bennett (2010).
Figure 1. Four Mode Model of Informal Learning (Bennett, 2012)

Based on Schugurensky’s (2000) speculation that there could be a fourth type of informal learning, Bennett (2010) conceptualized this fourth type that was predicated on unconscious but intentional learning, while she herself was searching for a solution to a problem.

Self-directed learning is conscious and intentional. This form of learning takes place when an individual purposely participates in learning (either individually or as part of a group), without the assistance of an actual teacher or instructor (Schugurensky, 2000). This form of learning is intentional because it is done with a purpose and it is conscious, as the individual is aware that learning takes place. Examples of self-directed learning for adjunct faculty include reading an article or book about online teaching, conversing with other faculty who teach online or by following a tutorial video that outlines steps or practices. Self-directed learning is typically viewed from three perspectives: personal attributes, processes and context. Personal attributes refer to a learner’s motivations for and capability of taking responsibility for their leaning (Garrison, 1997). The process perspective refers to the planning, monitoring and evaluating of one’s learning, which is viewed as a continuum (Candy, 1991). The context refers to environmental factors and how those factors impact the level of self-direction provided to the learner (Brockett & Hiemstra, 1991).
Incidental learning is conscious but unintentional, where the person did not set out to learn something, but realized they did learn something after the experience took place (Schugurensky, 2000). A prime example includes watching a tutorial video that presents a strategy (such as hiding elements of an online course to students) that adjunct faculty may not have been aware of prior. Incidental learning has its roots in learning “en passant” (Reischmann, 1986), or in passing learning, as well as in experiential learning (Knobloch, 2003). Incidental learning takes place in several ways, including through observation, repetition, social interaction and problem solving (Cahoon, 1998; Rogers, 1997; Leroux & Lafleur, 1995). Studies have shown that incidental learning results in improved competence, a change in attitude, as well as increases in self-awareness and self-confidence (McFerrin, 1999; Mealman, 1993). The value of incidental learning is maximized in social environments, where organizations provide opportunities for interaction and sharing among their employees (Marsick & Watkins, 2001). Incidental learning has been found to be critical when formal learning opportunities are either missing or lacking. Cahoon’s (1995) incidental learning study revealed that mutual problem solving of computer related issues in the workplace proved more important than the skills that were developed in a formal learning environment.

Tacit learning is both unconscious and unintentional and is often referred to as implicit learning, or socialization (Schugurensky, 2000). Polanyi (1967) labeled tacit learning as learning the knowledge that we know but cannot tell, with some of this knowledge being out of reach. Furthermore, tacit learning is the internalization of values, attitudes, behaviors and skills that occur in everyday life (Schugurensky, 2000). Examples of tacit learning include playing a sport where skills and abilities are continually improved over time, or when a child develops habits through observation or imitation. Much of tacit learning is absorbed by social means and is then
developed by experience and practice. For adjunct faculty, this practice can come in the form of interacting with their sandbox or practice course, where they can learn to build up their expertise. Developing audio or video lectures where a successful recording may take several attempts is an example that adjunct faculty may experience.

Integrative learning, a relatively new type of informal learning category, is non-conscious but intentional (Bennett, 2011). The significance of integrative learning is that it utilizes learner intuition to develop a sudden and noticeable point of insight or ah-ha moment (Bennett, 2011). Terms such as epiphany, eureka moment and sudden insight have been used synonymously to describe ah-ha moments (LeGendre, 2010). However, an ah-ha moment is defined as the point at which a clear and sudden understanding of how to solve or accomplish something becomes obvious and apparent (Bowden, Jung-Beeman, Fleck & Kounios, 2005). A more recent definition classifies integrative learning as a learning process that combines intentional non-conscious processing of tacit knowledge with conscious access to learning products and mental images (Bennett, 2010). An example of integrative learning can include the development of a new form of online assessment or finally understanding why certain aspects of an online course were not successful, after spending time and effort contemplating the issue, only to have the answer come to mind at an odd unexplainable time. Another example can include finding a workaround within a learning management system or successfully modifying a teaching practice, which surfaces while the faculty member is immersed in another activity unrelated to what they just discovered.

The value behind integrative learning is that it appears to help develop sudden leaps of understanding, as it helps answer questions or resolve problems at unexpected times (Bennett, 2012). These unexpected times occur when the learner focuses their attention away from the
issue, while they engage in activities that distract the conscious mind, which enables implicit processing to occur (Bennett, 2012). Examples of these activities can include exercise, mowing the lawn, or even sleep, where these points of insight suddenly surface.

Within integrative learning, Bennett (2012) has identified two sub-processes which are knowledge shift and sublimation to help support how and why these moments occur. Knowledge shift occurs when tacit knowledge moves through consciousness through a reflective process, but in bits and fragments (Bennett, 2012). As this process occurs, the mind continually refers to these various bits of knowledge, as this information surfaces and submerges, as if this information is being re-conceptualized, re-filed or restructured in the mind, as it prepares itself for that moment of insight. This sudden insight occurs in the second sub-process of sublimation, where ideas suddenly surface. Bennett (2012) used the term sublimation, because it means to skip a phase, therefore showing that this information does not surface linearly or rationally. Existing research into a better understanding of the ah-ha moment has been rather indecisive, since there is no way to predict when the ah-ha moment will actually take place (LeGendre, 2010). The two sub-processes identify two important steps that help demystify this puzzling occurrence.

Existing studies that entail ah-ha moments or sudden moments of insight are rare. Chambers (2007) studied ah-ha moments through transformational learning, analyzing Peace Corps volunteers and their experiences over a decade ago, utilizing self-reflection to stimulate past memories and incidences. However, Kiefer and Constable (2013) explained the power of aha moments or moments of insight as revolutionary. They found that on an individual level, they can be life-changing, while to an organization they can be radically redefining and strategic, immediately increasing competitiveness and advantage. Another study suggested that a-ha moments are the result of complete mind and body connection, where a stuck mindset must be
let go, in order to see the same information in a new light (Peper & Gibney, 2003).

**Summary**

VHRD is quickly becoming an important way organizations develop their employees. Through technological advancements, VHRD is becoming central to the notion of continual learning, where learning and development is occurring rapidly. The reliance on VHRD will grow, as KM transforms from an undervalued asset, to one that helps develop workplace learning strategically (Gourlay, 2000). The sharing of existing expertise and the ability to improve access to knowledge, should continue to evolve with the partnership between VHRD and KM. Formal learning has been the dominate method of learning in the workplace for some time. Its prescribed and systematic nature has enabled informal learning to become a viable option, to those who learn best outside of restrictions and limitations. The informal learning model has four components, with integrative learning being the focus of this study. Integrative learning is concentrated in helping answer questions about sudden moments of insight, or ah-ha moments, that are difficult to describe, but are valuable to understand.

**Literature Review Summary**

A significant opportunity exists for community colleges to look beyond the formal training of online adjunct faculty and consider the benefits that are realized from informal learning. In order to appreciate these advantages, community colleges should encourage and develop the opportunity for informal learning to exist. By maintaining formal learning as the predominate learning method, these institutions are neglecting the potential of informal learning in the development of their online adjunct faculty. The influence of both faculty and administrators is critical in allowing opportunities for informal learning to take root, so that informal learning can help develop faculty from a more diverse standpoint. Knowing and
understanding the impact of informal learning will be instrumental to administrators and policy
makers, because they will hear from the perspective of the adjunct faculty themselves. The
information should help develop recommendations, alter training methods and establish policies
that will cultivate informal learning strategies.

This study strives to fill in the gap in the literature, to investigate the development of
online adjunct faculty and the role that informal learning may play during this knowledge
building process.

**Limitations and Conclusions**

Several limitations in the reviewed literature present opportunities for further research.
First, existing research on online teaching at the community college level is scarce and
emphasizes points of preparation, explaining how faculty convert or transform their teaching
from the classroom to online (Herman & Banister, 2007; Palloff & Pratt, 2007). This literature
describes plans and programs that are prescribed, within the realm of formal training and
learning (Mitchell & Geva-May, 2009; Picciano, 2012). Second, a narrow body of literature
exists about the individual experiences community colleges have in developing and preparing
adjunct faculty to teach online. Existing literature does not account for personal insight or
individual experience, but rather on the entire process of online teaching (Gaytan, 2006; LeNoue,
Hall, & Eighmy, 2011). These studies may not be representative of the community college
environment and the transferability of these findings may be complicated to apply in this context.
Third, literature is almost nonexistent within the realm of informal learning and its role in
developing adjunct faculty to teach online. This scarcity in research is offset by an abundance of
literature that discusses the role of formal learning as preparation for adjuncts to teach online
(Barczyk, Buckenmeyer, & Feldman, 2010; Sener, 2007; Wright 2011). Existing literature has
not really evaluated informal learning in adjunct faculty development for online teaching at the community college level.

This qualitative study explored online adjunct faculty and their personal experiences with informal learning. Likewise, it explained their individual interpretations of and encounters with informal learning during their path of development to teaching online. The findings of this study may help bridge the divide between formal learning practices and potential informal learning opportunities in online adjunct faculty development. This information will be of value to any higher education institution that is looking to advance online faculty development through informal learning methods. Online learning administrators and policy-makers will become aware of the ways that informal learning has lent itself to the development of this group of employees. Chapter 3 will provide a description of the methods that were chosen for this proposed study.
CHAPTER THREE: RESEARCH METHODS

The purpose of this study was to understand how adjunct faculty developed professionally and learned to teach online through informal learning. Based on the intellectual goals, conceptual framework and qualitative methodology of this study, three research questions were formulated as the basis for this investigation:

1. How did adjunct faculty learn to teach online through informal learning?
2. How did formal training encourage adjunct faculty to learn through informal means?
3. How, if applicable, did adjunct faculty experience moments of sudden insight when learning to teach online?

Chapter three will discuss the research methods chosen by this researcher to investigate this study. The chapter provides an overview of the study and includes research methodology, research approach, recruitment and access, participants and sampling, recruitment, data collection, data analysis, limitations of the study, data storage and destruction and IRB approval.

Interpretivism

Interpretivism is a theoretical approach that reinforces the basis of qualitative research. Interpretivism seeks to socially construct the realities of stories and experiences as told by the people who lived those experiences (Butin, 2009). Interpretivism maintains a focus on the participant and their experiences in order to better understand the relationships between people and reality (Merriam, 2009). This reality is socially constructed and is described and represented by both individual and diverse perspectives (Butin, 2009). Each individual is as unique as their own perspective and each story is as unique as each individual experience.

Interpretivists argue that there is no universal truth about human behavior (Smith, 1989; Willis, Jost, & Nilakanta, 1999). Rather, the seeking of truth is replaced by a focus on
understanding. The understanding is conducted by searching for patterns in meaning so that the researcher can determine what actually occurred (Butin, 2009). Since interpretivists do not seek a universal truth, they believe that meaning is constructed from multiple viewpoints of reality. These varying realities surface as participants are interviewed and encouraged to provide insight into their personal stories and encounters (Butin, 2009). The perception of the world through another’s eyes helps researchers respect and understand diverse perspectives, contexts and cultures, which is essential to social science research (Willis, 2007).

Interpretivism can be traced back to Immanuel Kant who in 1781, published *Critique of Pure Reason*. Kant argued that there are other ways to learn about the world other than direct observation. Kant concluded that:

- Perception relates not only to our senses, but also to human interpretations of what our senses tell us;
- Knowing and knowledge transcend basic empirical inquiry;
- Distinctions exist between scientific reason (based strictly on causal determinism) and practical reason (based on moral freedom and decision-making which involve less certainty).

Wilhelm Dilthey, through his writing in the 1860s-70s, developed the importance of understanding, or ‘verstehen’ as represented in his native German. Dilthey studied people’s lived experiences, connecting the social, cultural and historical aspects of these experiences to the context in which they took place (Denzin & Lincoln, 2000). These very same founding principles are followed in many qualitative studies today.

The Interpretivist approach allows the researcher to interpret and understand the meanings and actions of those involved, within the context of their unique viewpoint (Williams,
2000). It enables the researcher to understand how online adjunct community college faculty learned to teach online through informal learning practices. This researcher’s goal was to make sense of the how faculty engaged in informal learning through their unique perspectives. For that reason, interpretivism is essential to this qualitative research study.

**Qualitative Research**

Basic qualitative research was used to conduct this study. Denzin and Lincoln (2000) describe qualitative research as a situated activity that locates the observer in the world where interpretation and practice transform how the world is viewed. Since qualitative research is viewed as a sense making process, Creswell (2012) reinforced this description as an uncomplicated approach to research that contains the following key elements:

- Originates from assumptions and interpretations;
- Inquiry involves collecting data from individuals within a naturalistic setting;
- Data analysis is meant to establish patterns or themes;
- The conclusion expresses the voices of the participants and researcher reflexivity;
- The research problem is thoroughly described and interpreted;
- Findings then contribute to existing literature or even call for change.

Another reason for selecting qualitative research was so that individual experiences of the faculty members were heard, within a natural and undisturbed setting (Merriam, 1998). Creswell (2012) offered three main criteria for selecting a research design approach which include understanding the research problem under investigation, the personal experience of the researcher and identifying the intended audience for readership. Following this criteria, qualitative research fits, because the researcher does have an intimate knowledge of the research problem which is based on work experience and the researcher is comfortable soliciting
information from a target audience of participants who were colleagues within higher education.

A major strength of qualitative research is its inductive approach, which focuses on the specifics of people or situations through their own words, rather than just on data or numbers (Maxwell, 2008). It emphasizes the process behind the participant’s experiences and offers a descriptive explanation that quantitative research cannot attain. It is this focus on the individual that can redefine practices and policies, since this type of research interprets the actual experience of these individuals and provides a non-technical interpretation of their situations so that others can more easily relate to the findings (Merriam, 1998).

**Research Approach**

The research approach for this examination is a basic qualitative study. Merriam (2009) describes a basic study as inductive and comparative, that focuses on understanding meaning and process that results in rich description of categories or themes. She further states this form of research is one of the most common in education. Similarly, Thomas (2006) described the general inductive approach (GIA) which provides process for analyzing data in a basic study, resulting in themes. Miles and Huberman (1994) suggested that the GIA follows a set of straightforward procedures that eliminates the need to learn technical language or jargon that is often associated with other traditional approaches. As a result, the findings and outcomes of a basic qualitative study can be relayed to others and applied in other contexts (Thomas, 2006).

GIA employs a very systematic approach for analyzing qualitative data that is bounded by specific and defined evaluation objectives (Thomas, 2006), which is similar to the first few steps of grounded theory, where findings are discovered through induction and creative synthesis (Burkhardt & Bennett, 2015). The general inductive approach does not impose explicit theories on data, but rather, it allows this data to emerge naturally and essentially on its own (Strauss &
Corbin, 1990). In other words, there is no hypothesis to test or prescription to follow. The inductive emergence of theme and sense making is conducive to this type of research, where the evolvement of information is based on actual experience, guided by researcher interpretation (Thomas, 2006).

GIA incorporates the interviewer as the instrument of analysis, who is seeking to develop a theory about a phenomenon which is currently being supported by very little, if any, theoretical evidence (Merriam, 2009). Thus, the qualitative researcher’s findings reflect a developing theory of what is going on in the context of the study. The researcher is therefore open to new ideas, constructs and theories, a process that is enabled and supported by the iterative nature of the GIA (Thomas, 2006). It is this process that encourages the discovery of new meaning as information is coded, categorized and explained. Through inductive analysis, influences become mutually shaped, as the realities and experiences of participants and the researcher undergo an evolutionary process of discovery and understanding (Guba & Lincoln, 1994).

An inductive analysis represents a bottom-up approach where the specific focus of a phenomenon or observation moves to a more general explanation (Creswell, 2012). Therefore the results are easier to understand, with the hope these results can then be applied by a wider ranging audience. Through a personal and intimate approach, the GIA solicits the development of themes from both the participants input, as well as from the researcher’s prior theoretical understanding of the phenomenon under investigation (Ryan & Bernard, 2003). Based on the researcher’s direct observation of this phenomenon, the general inductive study is an approach that will best utilize the combination of actual expertise (from the participants) and personal expertise (from the researcher).

The GIA approach has taken on several different names, but its fundamental principles
have origins in grounded theory, narrative analysis and even phenomenology (Thomas, 2006). However, GIA arguably predates these approaches with fundamentals originating from ethnography. Ethnography was developed by anthropologists specifically to study human society and culture (Merriam, 2009). Therefore, ethnography is not defined by how data is collected, but rather by the lens through which it is interpreted (LeCompte & Preissle, 1993; Merriam, 2002). One major key of ethnography is to develop a rounded, holistic explanation that comes directly from participants (Boyle, 1994). Additionally, the end product of the ethnographic research should be a coherent, fluent and readable narrative (Muecke, 1994).

The GIA has taken shape as a non-explicit qualitative analysis that works with a set of non-technical data analysis procedures to produce an understandable, virtually jargon free study (Thomas, 2006). He views the GIA as an approach that is primed to understand the meaning of complex data through the development of categories and themes, essentially through data reduction. Thomas (2006) has advanced several key assumptions within GIA, explaining how multiple interpretations of the data are typical, which positions the researcher as the primary factor in making judgments and decisions that impact the written analysis.

Within the realm of qualitative studies, the GIA was selected over the case study approach for several reasons. By its very definition, the case study approach is not necessarily representative, if it focuses on a single case or domain (Tellis, 1997). Due to this confinement, the case study approach would lack the transferability that this study seeks to accomplish. At best, inferential generalization is achieved within the case study approach, which then requires the reader to make judgment on how the findings can be applied within other settings or domains (Lewis & Ritchie, 2003). The case study approach would limit the portability and usefulness of the findings.
While the GIA requires researcher experience to be revealed or included, the case study approach can mask or be susceptible to researcher bias (Cornford & Smithson, 1996). The researcher becomes a pivotal figure, explaining and then lending their own insight and expertise as part of the overall process. Yin (2010) explained that the application of a case study is best suited for situations where it is difficult to separate a phenomenon’s variables from its context. For purposes of this study, it is important to provide transferability across context, so the reader can understand how this phenomenon can be better addressed within their own domain or context.

**Participants and Sampling**

Since this study was interested in the development of adjunct community college faculty in the mid-Atlantic region of the United States, participants were drawn from adjunct community college faculty who have taught at least three online courses at an area community colleges. The participant pool included only adjunct faculty. Eleven participants were selected for this study, since qualitative research often selects a small sample size (Creswell, 2007). Participants were selected from community colleges within Pennsylvania and New Jersey. The range of participants was critical, to ensure that an assortment of experience and beliefs are shared and captured. The range, described in Table 1 (upcoming) ensured that cultured and multi-perspective accounts underpinned this study (Creswell, 2012).

Judgment or purposive sampling (Creswell, 2012; Merriam, 2009) was used to identify potential participants that met the prescribed criteria. In this sampling strategy, people and settings are intentionally chosen to provide information that otherwise may not be attainable by another selection strategy (Maxwell, 2008). Purposive sampling allows the researcher to identify potential participants based on inclusion criteria, so that a deeper understanding of the problem
can result (Patton, 2002). Snowball sampling was also required, where potential candidates were recommended to the researcher by the initial judgment sample (Marshall & Rossman, 1999). Snowball sampling relies on personal contacts or on the referrals from contacts, to identify additional participants that meet the inclusion criteria (Merriam, 2009).

The two sampling strategies took into account four critical factors including study fit and purpose, the questions being asked, available resources and potential constraints (Patton, 2002). There is an understanding that some participants may initially agree to engage but fail to participate, they may fail to follow up or may simply show a general lack of interest. One potential candidate did initially agree to participate, but then explained that other commitments prevented them from participating in two interviews and declined. Along these lines, not all potential participants may want to participate and may not feel comfortable partaking in a study that sought to uncover how informal learning affected their development in online teaching. All candidates who participated in the first interview agreed to and completed their second interviews.

The weakness or threat of this sampling process may lie within the homogeneousness of the sample size itself, where all participants will be personally selected based on inclusion criteria (adjunct faculty, teaching online at a community college, must have taught at least three online courses). Steps were taken to ensure the sample size represents a diverse sample pool conscientious of gender, age and ethnic background.

**Recruitment**

The initial contact with the participants was through a recruitment letter email (Appendix A) in order to gauge qualifying criteria. The recruitment letter included a brief statement outlining the nature and purpose of the study, my contact information, an assurance of
confidentiality, and a request to contact the researcher via email if interested (Seidman, 2006). The researcher targeted four community colleges in Pennsylvania and four in New Jersey. The researcher began to email the recruitment letter to faculty who were staffed to teach online courses in upcoming semesters, as listed on the public websites of the colleges. The researcher reviewed all returned correspondence and contacted eligible respondents based on inclusion and exclusion criteria via email. The researcher confirmed that each potential candidate was an adjunct faculty member and that they have taught three or more courses online. Several participants did not reply to my initial or follow up email and some stated that they were full time faculty. Potential participants who did not respond within seven days of initial contact were contacted once more via email as follow up. If no response was received within five days of follow up, that potential participant was not contacted again. Once the criteria was confirmed, the participants were contacted by either telephone or email and initial interviews were scheduled based on mutually convenient days and times. Table 1 depicts the final sample used for this study and includes gender, race/ethnicity, age, and location of community college.
Table 1

**Final Sample Matrix**

<table>
<thead>
<tr>
<th>Sampling Matrix</th>
<th>Quantity of Participants Final Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>7</td>
</tr>
<tr>
<td>Male</td>
<td>4</td>
</tr>
<tr>
<td><strong>Race/Ethnicity</strong></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>6</td>
</tr>
<tr>
<td>Non-White</td>
<td>5</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
</tr>
<tr>
<td>21-40</td>
<td>5</td>
</tr>
<tr>
<td>41-65</td>
<td>6</td>
</tr>
<tr>
<td><strong>Location of Community College</strong></td>
<td></td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>65</td>
</tr>
<tr>
<td>New Jersey</td>
<td></td>
</tr>
<tr>
<td><strong>Total Participants</strong></td>
<td>11</td>
</tr>
</tbody>
</table>

Study participants included a group of eleven adjunct community college faculty who have taught three or more online courses. The final sample included seven females and four males, representing four community colleges in Pennsylvania and three in New Jersey. Originally, the study would include nine participants, but at the suggestion of their advisor, the researcher submitted a modification request with IRB (and permission was granted by IRB) to increase the sampling size from nine to eleven participants. This was done to recruit two additional males into the study, to ensure that diverse perspectives and descriptions were represented in this study (Butin, 2009).

**Data Collection**

The data collection for this study was primarily conducted through two interviews with
each participant. The first interview ranged from sixty to seventy five minutes, while the second interview also ranged from sixty to seventy five minutes. Initially, the second interview was to be a twenty to thirty minute interview, but at the request of my advisor and after IRB approval for a modification request (which was granted), the second interview ranged from sixty to seventy five minutes, which all participants agreed to prior to scheduling their second interview. The timing of the first and second interviews with each participant occurred so that there was between one to three months spacing. This allowed participants to reflect on their first interviews and to provide more insight and new learning moments at the second interview. The initial nine candidates were interviewed three months apart from their initial and follow up interviews, while candidates ten and eleven were interviewed one month apart from their initial and follow up interviews. Both interviews were conducted in a semi-structured manner, which focused on the three research questions that informed this study.

Interview guides, the Initial Interview Guide (Appendix C) and Second Interview Guide (Appendix D) were carefully designed based on qualitative interviewing principles as suggested by Butin (2009) and Merriam (2009). Qualitative interview studies and research suggest that these interviews start off by asking general questions, which then move into a more specific series of questioning. The question order should relate to the importance of issues in the research agenda, as determined by the researcher (Silverman, 2000). This also suggests that easier, rapport building questions should come first, which would set the stage for more difficult or sensitive questions to be asked. While a set of predetermined questions is certainly needed for semi structured interviews, it is up to the researcher to probe and explore additional issues as they present themselves during the interview. In order to solicit a deeper meaning of understanding, questions during the first interview (Appendix C) were more open ended, which
encouraged the participants to talk freely and share stories of their lived experiences (Butin, 2009). Several follow up questions were asked of each participant during their initial interviews to help provide definition and clarity some of their responses. Each second interview followed a list of predetermined questions (Appendix D) that were asked of all participants and concluded with a list of follow up questions that I prepared based on each participant’s initial interview responses (Leedy & Ormrod, 2010).

In addition to this rapport building and open ended questioning, the interviewer should maintain a very neutral body language and posture, in order to relay to the participant, their high level of interest and encouraging presence (Legard, Keegan, & Ward, 2003). Various forms of reaction and expression by the researcher were neutralized, so participants were not startled or discouraged from explaining their experiences. While responses from participants were not very animated, some did express great joy while answering questions. My response was to remain calm and nod my head up and down to show that I was listening and sharing in their joy. Interviews were conducted away from campus, so confidentiality and identity was preserved. The actual identity of each participant is masked by a uniquely assigned pseudonym, as are the names of each institution. Written informed consent (Appendix D) was disclosed and read to each participant prior to their initial interview. Two written consent forms were signed prior to initial interviews. One written consent form was retained by each participant, while the second copy is kept in a locked file cabinet by the researcher, until it is properly disposed of according to the IRB.

No incentives were provided to the participants. After each of the interviews, participants were thanked for their time. Interviews were transcribed immediately after each interview took place and participants were emailed their respective transcripts. This was done to serve as a
follow up mechanism to ensure the accuracy and clarity of the transcribed information (Saldaña, 2012). Some qualitative studies conduct focus groups. Since the individual participation of online adjunct community college faculty was sought, the likelihood of a focus group taking place was extremely difficult to conduct, especially since participants were restricted by distance and time restrictions. In addition, the moderating skills of the researcher, coupled with potential group or conformity bias and small group anxiety were considered, which ruled out any possibility of a focus group approach. For this qualitative study, the researcher believed that one on one interaction with each of the participants was the best probability of soliciting information directly, so meaning and value was not biased or lost (Thomas, 2006).

Data Analysis

The data analysis process for general inductive analysis is in line with analytical decision making, in which the researcher is an intricate part of the process. The researcher uses an inductive and interpretive approach to turn data into theories and ideas (Saldaña, 2012). Brenner (2006) saw this data analysis process as a very systematic one, which is framed within five explicit steps. These steps include transcription, description, analysis, interpretation and display. While this process may seem very linear, Glaser and Strauss (1967) explained that repetition, in the form of a constant comparison is necessary to truly develop a sense of insight and meaning.

An overview of these five steps is justification towards the use of this process within GIA. The transcription phase involves converting oral interviews or conversations into text, which Patton (2002) described as a very theoretical decision based process. The description step involves a coding process, in which the interviewer takes the transcript and provides a thematic analysis in order to categorize and order the data collected (Brenner, 2006). The analysis phase requires the researcher to now investigate the data and code it for correlations, relationships and
comparisons, in order to identify themes across the interviewee pool (Brenner, 2006). The interpretation phase requires the researcher to then draw connections between their research and larger theoretical issues. Researchers need to compare their findings to those of others for relevancy and contextual conformity (Brenner, 2006). The display stage is described by Miles and Huberman (1994) as one that requires the researcher to conceptualize the best approach for the presentation of data. Since interviews typically solicit a deepness and richness of information, it is important to display data in a variety of ways, so that the individuality of participants through verbatim quotes and in depth examples are not only considered, but also included for readership (Brenner, 2006).

The description, analysis and interpretation phases were where the majority of coding was done. This multiphase process includes open and axial coding, descriptive and in vivo coding, and constant comparison. Table 2 depicts an illustration of the coding process in inductive analysis used in this study.

Table 2

*The Coding Process in Inductive Analysis*

<table>
<thead>
<tr>
<th>Initial close reading of raw text conducted</th>
<th>Specific text segments related to research question identified</th>
<th>Text segments coded to create categories and codebook created</th>
<th>Re-examine coded categories to reduce overlapping and to synthesize categories</th>
<th>Most important categories that express themes created</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple pages of raw text</td>
<td>Constant Comparison</td>
<td>Axial Coding</td>
<td>12 themes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Open Coding</td>
<td>30-35 categories</td>
<td>15 – 20 categories</td>
<td>12 themes</td>
</tr>
</tbody>
</table>

Adapted from Corbin and Strauss (2008), Creswell, (2007), Merriam (2009), and Thomas (2006)
I listened to interview recordings and compared them to the transcripts to ensure accuracy. Transcripts were analyzed from the audio recordings so coding could begin. Each transcript was carefully read twice and pre-coding was used directly on the printed transcripts in order to make information stand out, for possible coding. During pre-coding, transcripts were de-identified to remove all identifiable information to people or places. Quotes and passages that initially struck the researcher were circled or underlined, while I jotted notes in the margins of the transcripts (Saldaña, 2012). Items that were circled encompassed mostly actions or feelings, while underlined items focused on processes, experiences and examples.

Open coding, also known as first cycle coding, involves the breaking apart of data, so the data is split up into meaningful blocks or units through the identification of key phrases, meaningful words or paragraphs (Saldaña, 2012; Strauss & Corbin, 1998). Data was coded using a general inductive approach. This approach required the close reading of text to pull multiple meaning that are inherent in the text (Thomas, 2006). Codes were stabilized and applied to each of these blocks of information and recorded in a codebook. A stable code is one that is unlikely to change and it does not overlap theoretically with other codes. The codebook included each code, its definition and examples from the transcripts that supported each code. As each transcript was coded, initial codes were written in the margins of the printed transcripts. Examples of initial codes included “trial and error”, “small things”, “asking for advice”, “over time” and “unexpected”, which were in vivo or the exact words used by the participants (Creswell, 2012).

Next, the researcher used axial, or second cycle coding that takes the data that has been split apart and reassembles it into categories of thematic findings that related back to one another (Saldaña, 2012; Strauss & Corbin, 1998). Axial coding is much more interpretive than open
coding, which led to synthesized categories, as patterns were identified and matched (Saldaña, 2012). Codes that were initially identified in open coding were then grouped together thematically. After several readings of the transcripts, clearer codes emerged and conceptual categories began to develop. Merriam (2009) suggested that categories must be responsive to purpose the research, to where categories must follow the suite of each research question. Codes were reexamined several times to make sure they only fit into only one category, since each category must be unique, with its own well-defined meaning (Merriam, 2009). These categories must be definably different and were eventually developed into themes, once the data analysis was completely exhausted. The goal of this coding cycle was to develop categories and themes that were most relevant to the research objectives (Thomas, 2006). For example, the initial code of “talking to people” was mentioned many times in the transcripts. After going back through the transcripts, I recoded “talking with people”, which included personal contacts, college faculty and administrators, into a more dominant and meaningful one. This became part of a predominant category called “learning from experts”, which was then renamed to “seeking others experience with online teaching. This category included three properties: learning from other faculty, learning from administration, and learning from others, or people who were not administrators or faculty at the institutions the participants taught at. Again, after reevaluation, these three properties became known as: asking faculty with online teaching experience, actively seeking experienced college staff for advice and learning from the experience of external personal contacts, respectfully.

Descriptive and in vivo coding was used to establish substantive categories as data was gathered and built into concepts and theories and inductively developed (Maxwell, 2005; Merriam, 2009). Substantive categories are descriptive since they include the descriptions of
participant’s concepts and beliefs and they stay close to the data categorized (Maxwell, 2005). Descriptive coding summarizes the basic topic of a passage of qualitative data, into a word or short phrase (Saldaña, 2009). In vivo coding is a process in which the participant’s exact words or phrases are used verbatim to create category names or code labels (Creswell, 2007). Several iterations of these coding examples took place over significant amounts of time, in order to develop substantive categories. "Hands-on" and "practicing" were combined under the in vivo code "playing with it", which eventually became a final theme: "exploring through experimentation".

Throughout data analysis, constant comparison was used to match patterns of similarity or difference (Merriam, 2009). Each time the researcher coded a segment of text, they compared it to every other segment of text that they had coded in the same manner. The evolutionary examples listed in previous sections that describe my coding process exemplify this ongoing process. Data of similar nature was grouped into a substantive category. Each time a segment of text was coded, it was compared to other text coded in the same manner (Gibbs & Taylor, 2010). Therefore, consistency was ensured, as constant comparison lessened any overlapping or redundancy in the coding process. Transcripts were coded after each interview and constant comparison was used throughout the data analysis process. This practice led to the grouping of similar codes into overarching categories, which were supported by specific evidence and important quotes selected from the participants’ transcripts (Saldaña, 2012; Strauss & Corbin, 1998). Categories were reviewed to reduce overlap and redundant codes. Eventually, twelve themes were developed for this study.

After the researcher developed my near final category list, that included definitions, properties and supporting quotes from the transcripts, a simple spreadsheet of these findings was
emailed to all of the participants. They were asked to review the summary of findings and forward to me any feedback they had, as part of a member checking protocol. Four participants responded to the summary of findings and supported the findings. No suggestions or changes were proposed. This practice ensured that my interpretations and conclusions truly represented the participant’s actual experiences, so that any researcher misunderstanding or bias was eliminated (Maxwell, 2005).

**Reliability and Validity**

The concepts of reliability and validity were developed in the natural sciences and are important in qualitative research (Lewis & Ritchie, 2003). Within a general context, reliability means 'sustainability' or ‘repeatability' and validity means 'authenticity' or 'well grounded', which helps define the strength of the data (Lewis & Ritchie, 2003; Lincoln & Guba, 1985). Qualitative research does not strive to measure, since its main focus is to seek a deep level of understanding. Therefore, some argue that reliability and qualitative research are not as closely aligned as validity and qualitative research are (Holstein & Gubrium, 1997; Lincoln & Guba, 1985). Reliability is often concerned with the replicability of research findings and whether or not the findings could be repeated if another study that followed the same methods was conducted (Lewis & Ritchie, 2003).

Field notes and reflective memos were kept as part of an audit trail. During each interview, the researcher documented details about participant behaviors, expressions and gestures. For example, during one interview, the researcher jotted down: “Seems way too happy” based on a participant’s action where they could not sit still and took great joy in sharing their ability to teach someone else a new technique that they just learned about the learning management system they were using. The researcher wrote reflective memos after each
interview, which helped document their overall thoughts and impressions. Reflective memos created after the first round of interviews helped develop specific follow up questions for each participant for their second round of interviews. These notes and memos helped develop a series of documents, or an audit trail, that captured information as the research was taking place (Lincoln & Guba, 1985; Merriam, 2009).

Validity of findings or data is often referred to as 'correctness' or 'precision' of research reading (Lewis & Ritchie, 2003). Butin (2009) defines validity as the strength and accuracy of a researcher's conclusions. A focus on validity and what it embodies, will ensure that a qualitative research is credible. Validity is often viewed as having two distinct dimensions internal and external validity.

**Internal and External Validity**

Internal validity is achieved when the researcher investigates what they claim they are investigating, by using their ability to ensure that findings are in accordance with the type of research being conducted (Creswell, 2008; Lewis & Ritchie, 2003). In other words, is the researcher accurately reflecting the phenomena under study as perceived by the participants of the study? (Hammersley, 1992). Since this study relied so heavily on the interpretation of data collected from interviews, two interviews of each participant were conducted. During the first round of interviews, an audit trail was kept that included my own personal notes, questions and speculations that came to my mind. After each interview, time was taken to write a reflective memo that summed up my thoughts and feelings about the interview.

The nature of a qualitative study seeks depth of understanding, as it takes into account people and context. Validity in qualitative research represents truth or an accurate depiction of what is intended to be described or explained (Corbin & Strauss, 2007; Creswell, 2012).
Trustworthiness is the relationship between data and conclusions, which is the goal of qualitative inquiry (Maxwell, 2008). Lincoln & Guba (1985) identified four key elements that comprise trustworthiness: transferability (the applicability of findings in other contexts), dependability (findings are replicable and consistent), credibility (findings are confident) and confirmability (findings were developed from the participants and not the researcher).

Taking into account the importance of trustworthiness and validity in qualitative inquiry, several key strategies were taken into account to establish credibility and dependability (Lincoln & Guba, 1985, Thomas, 2006). They included member checking, describing the role of the interviewer and triangulation, since this form of interview based research relies so heavily on the researcher as the primary research instrument (Brenner, 2006; Creswell, 2008).

**Member checking.** Member checking is a technique used to provide each participant with a transcript of their interview to confirm accuracy, before any data is analyzed by the researcher (Creswell, 2007; Saldaña, 2012). Member checking is used to clarify any questions that still need to be answered and allows the participants to reflect on their responses to ensure they said want they wanted to say (Maxell, 2005). The purpose of member checking is to assure trustworthiness of the data. A summary of results was emailed to each participant as a way of completing the member checking process. This was conducted so that each participant can make final alterations or corrections, especially if they felt that they were inaccurately depicted at any time. Transcripts were emailed to each participant within three days of their interviews and the interviewer asked each to read and return any comments or points of clarification that they wanted to make within ten days. Seven responses were received after the first round of interview transcripts were sent to each participant and five responses were received after the second round interviews were sent. No suggestions or proposed changes were included in either round. Two
participants pointed out some small typographical errors they found in the transcripts and some just replied with well wishes or with words of encouragement.

**Role of interviewer.** The researcher’s own insight and perspective on the subject is a clear threat to the validity of this research. Extreme care was followed to ensure that the study is representative of the participant’s perspective and not that of the researcher. Personal bias and assumptions are considered threats to validity, so these will be revealed and clarified within the study. The researcher should not only describe who they are, but should also explain how they might be perceived by the participants as well (Creswell, 2012). The researcher brought relative experience as a higher education administrator who has the responsibility of working with and developing online community college faulty. The researcher was intensely aware of the issues that surround teaching college level courses online and want to help increase faculty participation in this medium. This awareness is the fundamental reason as to why the researcher sought a better understanding to make sense of this population's experiences and realities.

**Triangulation.** Triangulation and the development of thick descriptions is used to safeguard credibility and to combat researcher bias (Creswell, 2012). It also serves to deal with threats to validity. Elements of triangulation were used in order to develop a wider range of perspective, through a representative sample size of eleven participants. Thick descriptions encourage a more representative or realistic point of view, capturing the richness of a varied participant pool (Creswell, 2012). Triangulation requires the researcher to collect information from multiple sources and methods, which utilized interview transcripts, coding records, reflective memos, member checking and constant comparison (Creswell, 2007; Corbin & Strauss, 2007; Lincoln & Guba, 1985; Maxwell, 2008; Merriam, 2009). Triangulation requires the researcher to collaborate evidence from different types of data (Thomas, 2006). Therefore
constant comparison is a process that was continued throughout the entire data analysis process. Throughout the study, I continually reviewed discrepancies in data and conflicting explanations, to help contest my findings as they developed.

**Limitations**

As with any research tradition, qualitative research does have limitations, which are important to explain (Creswell, 2008). First, the study was geographically limited to Pennsylvania and New Jersey. Second, even though eleven participant experiences comprised this study, this is an extremely small sample size as compared to the tens of thousands of online adjunct faculty that teach at community colleges in the United States each year. Online adjuncts at four years institutions were purposely excluded since they were not the target of this investigation. Third, the participants were requested to provide accurate information about their experiences, opinions and perceptions as they learned to teach online. It is assumed that participants understood questions and provided accurate accounts, which prevented the dramatization or sensationalizing of situations and experiences. The aforementioned techniques were used to combat the limitations of qualitative research. However, the strengths of this study outweigh its limitations. First, the participants in this study were well immersed in and personally experienced the phenomenon that was studied. Second, since qualitative research is very reflective, my goal was to submerge myself in the experiences of the participants, to understand, then share, the nature of their combined experience. Participant interviews, transcripts of these interviews and a robust data analysis process enabled an in depth understanding of the phenomenon being researched. Thirdly, the researcher was able to interact and engage with these participants to show a very subjective, yet human side of research. The
participant’s beliefs, opinions, emotions, and experiences were captured to show their story, a hallmark of qualitative research.

**Data Storage and Destruction**

All work associated with this research was primarily stored on the researcher’s home computer, with data being automatically backed up every hour. Data was transported between locations (home, office, interview sites) on the researcher’s laptop through portable jump drives, which allowed me to store all data to the jump drive, without the risk of leaving data or information on the hard drives of public computers. The naming of files, folders and storage devices was coded in such a way that only the researcher was able to determine who and what for what purpose, the files were associated with. Hard copies of transcripts were kept in a locked file cabinet at the home office and transported within a locked briefcase. Transcripts never had the actual names of the participants on them and no one else except for the researcher had access to them. Transcripts were stored in the researcher’s home office in folders that were purposely mislabeled to diminish interest if access is gained by others. All hard copies and transcripts will be shredded after three years. The interviews were recorded on two different devices simultaneously for redundancy. The actual audio recordings will be deleted one year after the study has been concluded.

**Protection of Human Rights**

Several steps were taken to guarantee the confidentiality and privacy of each participant that took part in this study. Permission from the Northeastern University Institutional Review Board (IRB) was sought first and granted, soon after application for IRB was filed. The purpose of IRB is to make sure that any study follows ethical guidelines and ensures to the participants, that they will not be harmed as a result of their participation (Butin, 2009). A recruitment letter
was then emailed to potential participants which stated why they were being contacted, what the purpose of the study was and who to contact if they wanted to participate. A consent form approved by the IRB was then explained to each participant and signed prior to the interviews. Seidman (2006) suggests that the following components should be covered in the consent form: the invitation to participate, identification of potential risk, an understanding of the participant's rights, any possible benefits, assurance of confidentiality, an explanation of how the research will be circulated and researcher contact information. All of these components were included in the consent form (Appendix B) used in this study. Each participant was asked to sign and then keep a copy of the consent form for their records. These consent forms will be saved for three years in a locked file cabinet at the researcher’s home.

The study was also voluntary and participants were able to withdraw or stop participating until data was recorded. Participation in this research did not pose any obvious risks to the participants, since the research study solicited only the opinions and experiences of the participants through interviews. The only theoretical risk was that actual names would be disseminated or identified with this research. This was eliminated with the careful handling of data and the use of pseudonyms to protect the identity of the participants and the community colleges they work for. All transcripts were de-identified including names, places, programs and departments, to avoid any possible offense to those who were referenced in the transcripts. In addition, the labels of speaker 1 and speaker 2 were given to the researcher and participant, respectfully, in the transcripts. The de-identification process was also done to protect the participants, in case data happened to be stolen or misplaced. The study did not include any participants under the age of 18 and it did not include anyone classified as a member of a vulnerable population. The findings of this study are presented in Chapter Four.
CHAPTER 4: FINDINGS

The purpose of this study was to understand how adjunct faculty developed professionally and learned to teach online through informal learning. Based on the intellectual goals, conceptual framework, and qualitative methodology of this study, three research questions were formulated as a foundation for this investigation:

1. How did adjunct faculty learn to teach online through informal learning?
2. How did formal training encourage adjunct faculty to learn through informal means?
3. How, if applicable, did adjunct faculty experience moments of sudden insight when learning to teach online?

The following chapter begins with an introduction of the eleven study participants, followed by a presentation of research findings by research question. Each research question section concludes with a section summary. Chapter 4 ends with a chapter summary.

Study Participants

The primary data for this study was collected via two sets of eleven interviews with participants who are all online adjunct faculty at community colleges in the states of Pennsylvania or New Jersey. This section will provide a brief narrative and description of each participant, arranged in the order in which they were interviewed. Table 3 presents a visual representation of the participant’s key demographic information, which was used in the participant selection process to ensure range and variation. Table 3 includes gender, race/ethnicity, age range, highest degree earned, years of teaching experience, state they teach in and the community college they teach for. All participants are over the age of twenty-one and
each was assigned a pseudonym to protect confidentiality.

Table 3

*Matrix of Participants’ Key Demographics*

<table>
<thead>
<tr>
<th>Name</th>
<th>Gender</th>
<th>Race/Ethnicity</th>
<th>Age Range</th>
<th>Highest Earned Degree</th>
<th>Years of Online Teaching Experience</th>
<th>State/Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laura</td>
<td>F</td>
<td>White</td>
<td>21-40</td>
<td>Masters</td>
<td>7</td>
<td>PA / Hawthorn College</td>
</tr>
<tr>
<td>Mark</td>
<td>M</td>
<td>White</td>
<td>41-65</td>
<td>Doctorate</td>
<td>12</td>
<td>NJ / Oakview College</td>
</tr>
<tr>
<td>Jane</td>
<td>F</td>
<td>White</td>
<td>41-65</td>
<td>Doctorate</td>
<td>4</td>
<td>PA / Redwood College</td>
</tr>
<tr>
<td>Paula</td>
<td>F</td>
<td>Non-White</td>
<td>41-65</td>
<td>Masters</td>
<td>5</td>
<td>PA / Banyan College</td>
</tr>
<tr>
<td>Dana</td>
<td>F</td>
<td>Non-White</td>
<td>21-40</td>
<td>Masters</td>
<td>11</td>
<td>PA / Chestnut College</td>
</tr>
<tr>
<td>Stacy</td>
<td>F</td>
<td>White</td>
<td>41-65</td>
<td>Masters</td>
<td>3</td>
<td>NJ / Kauri College</td>
</tr>
<tr>
<td>Steven</td>
<td>M</td>
<td>Non-White</td>
<td>21-40</td>
<td>Masters</td>
<td>3</td>
<td>PA / Chestnut College</td>
</tr>
<tr>
<td>Jackie</td>
<td>F</td>
<td>White</td>
<td>21-40</td>
<td>Masters</td>
<td>10</td>
<td>NJ / Cypress College</td>
</tr>
<tr>
<td>Linda</td>
<td>F</td>
<td>White</td>
<td>41-65</td>
<td>Masters</td>
<td>4</td>
<td>PA / Hawthorn College</td>
</tr>
<tr>
<td>Dan</td>
<td>M</td>
<td>Non-White</td>
<td>41-65</td>
<td>Masters</td>
<td>3</td>
<td>NJ / Kauri College</td>
</tr>
<tr>
<td>Chris</td>
<td>M</td>
<td>Non-White</td>
<td>21-40</td>
<td>Doctorate</td>
<td>8</td>
<td>NJ / Cypress College</td>
</tr>
</tbody>
</table>

**Interview One: Laura**

Laura is a full time administrator at a community college. Laura has worked both full and part time at the same community college for fourteen years. Her responsibilities have continued to grow in scope and stature during this time. Laura began teaching online on a whim, she was simply asked to at one point to fill a growing need. Laura holds a bachelor’s degree and master’s degree in the same subject and just started an online doctoral program in 2015. Laura has taught four different online courses and has been teaching online for seven years. She prefers online teaching to classroom teaching because she is not comfortable standing in front of a room full of students and just lecturing. Laura explained the importance of learning from others, as she incorporates a lot of “new things” into her online courses by conversing with others, primarily faculty and staff at the community college she works at. She also mentioned how she has learned
by being a student in her online doctoral program and sees that she “can do so much more” in her own online courses as a result.

**Interview Two: Mark**

Mark is a retired high school teacher who has been an adjunct faculty member at various community colleges and universities for fifteen years. Mark has been teaching online for twelve years and holds a doctorate degree which was earned in a hybrid format. Mark started teaching online after being asked to become involved at a community college who was starting to introduce online courses in 2003. Mark attributes his start to online teaching to the rapport he built with the dean and the academic division at the community college, in addition to these people “not having to worry about my performance”. Mark is always “on top of his courses” and stresses the importance of learning how to build a framework or regiment for his online teaching and learning environment.

**Interview Three: Jane**

Jane is an adjunct faculty member who teaches as an adjunct at both a community college and at a private university. Jane has sixteen years of teaching experience, which began in the classroom and with televised courses. She has taught online courses for four years and was “very intimidated by the whole thing” when she started teaching online. She describes herself as very old fashioned with technology, but has learned to enjoy online teaching by incrementally developing her confidence level with technology, as well as with what is expected in an online classroom. Jane earned her doctorate degree in the classroom and has gone on to earn post-doctoral credits online in the discipline in which she teaches. Jane also teaches in the physical classroom and began to use a learning management system in her classroom courses to reduce waste and to save time. She experiences a-ha moments “all the time” and “always reflects on the
day” when driving home from campus.

Interview Four: Paula

Paula has held positions in the technical programming industry for about twenty years and in high school teaching for thirteen years. Paula was encouraged to apply for an adjunct teaching position at a community college by a neighbor who also taught for the institution. Paula has taught in two different disciplines at a private high school and started teaching night classes in person for the community college. Because of her technical background, Paula felt strongly about teaching online because she was able to pick up information very quickly and is very organized, which is attributed to her programming background. Paula enjoys the convenience and flexibility of online teaching, which she has been doing for 5 years. Paula holds a master’s degree and enjoys to see how teaching continues to naturally evolve. Paula describes that most of her learning takes place “just by doing” and that she “didn’t really experience any barriers” when learning to teach online.

Interview Five: Dana

Dana is an adjunct instructor at two community colleges and use to adjunct in the classroom at a university. At one community college she teaches online and in the classroom and at the other she teaches in the classroom. Dana has worked as an administrator for two community colleges and at a university while simultaneously teaching as an adjunct. She holds a bachelor’s and master’s in the same subject and left her full time administrative position to start a family several years ago. She started teaching online as a natural transition since one of the community colleges was "moving in that direction". Dana has found online teaching to be more welcoming, since her commute to campus is about an hour each way. She also appreciates that her sole focus is on teaching and learning, without the additional responsibilities of student
advising and related responsibilities expected of full time community college faculty. Dana is “always learning” and appreciates a good conversation with other faculty, to discuss and learn from each other’s teaching experiences.

**Interview Six: Stacy**

Stacy has been teaching as an adjunct at two community colleges and at a university for about 10 years. She has taught online for three years at a community college and continues to teach classroom courses at the university. She brings eleven years of work experience in an industry outside of education, in which she still does occasional freelance work while teaching. Stacy answered an advertisement for an adjunct faculty position in a newspaper and was put into an online course about a year later when another instructor originally assigned the online course withdrew. She found that teaching online was a way to expand her horizon and attributes her online teaching to “helping her grow in the seated classroom”. Stacy holds a master’s degree and teaches three different courses within the same discipline. Stacy mentioned that she likes the structure of formal learning, but also engages in informal learning to further develop her skills. Since she was never formally trained to be a teacher, Stacy acknowledged that learning from full time faculty who teach for a living, has been helpful in her learning to teach online.

**Interview Seven: Steven**

Steven is an adjunct instructor who teaches at two community colleges and works another position outside of education. He teaches three courses within the same discipline both online and in the classroom, in the same discipline in which he earned his master’s degree. Steven began teaching five years ago as an adjunct at a community college at the suggestion of a former associate. After spending time in the classroom he took on an online course because he “wanted to be part of the future” and “for very practical reasons”. As an adjunct he has made a lot of
“good friends” with other adjuncts at the two community colleges and feels a real camaraderie among these peers. As an online adjunct, Steven has learned a lot of little things that have helped him grow as an instructor, including a renewed passion and concern for community college students. He has been teaching online for three years and has seen his classroom teaching benefit from what he does in his online classroom.

**Interview Eight: Jackie**

Jackie has been teaching at the community college for thirteen years, both classroom and online and exclusively online for the past ten years. She has taught only one course during this time. She was a teaching assistant in graduate school and has experience teaching younger children, as well as some youth counseling. Jackie holds a masters in a different discipline than from her bachelors and is planning to earn another masters in the near future. She started teaching online when the department had an opening during a summer semester, after she interviewed with an academic department coordinator. The transition from classroom to online gave her great flexibility to meet her family obligations and allowed her to continue to teach. Jackie finds the online classroom to be “a lot more challenging” then the physical classroom, but finds herself rejuvenating her online course “much more” than she ever did in the classroom.

**Interview Nine: Linda**

Linda began teaching at a community college by responding to a solicitation for local faculty to teach a specialized class who possessed both a master's degree and state licensure. Linda admits that she hesitated and contemplated applying, even though she has been teaching, training and educating others outside of a formal college environment for a while. She starting teaching the course in the classroom and moved to the online format, as she also teaches as a classroom adjunct at a university. The commute to the community college began to take time
away from other aspects of her life. Linda is currently working on her doctorate degree in a discipline different from what she teaches in. She holds a masters in her teaching discipline and has earned a professional credential within this field. Linda appreciates teaching online because she is able to reach students who may not be able to take classes in person. She enjoys conversations with others and uses “any opportunity” as a chance to learn something new or different.

**Interview Ten: Dan**

Dan has been an adjunct instructor at a community college for twenty five years, teaching both non-credit and credit classes. He was a corporate software trainer for many years and was able to carry over this experience into teaching computer classes. Initially, Dan taught computer courses for kids and adults and then began teaching credit courses in the classroom and more recently online. Dan earned a degree in education and changed his aspirations of becoming a teacher over to computers, which he was very passionate about. He is comfortable with technology and has helped other faculty with their multimedia needs, such as audio and video lecture recording. Dan took an interest in computers many years ago and found his move into online learning as a “good fit” between his corporate training experience and his passion for technology explaining that online education “is where things are headed”. He finds that his a-ha moments come to him at the “absolute worst” times, but has been able to capture a lot of them by “texting himself” these moments.

**Interview Eleven: Chris**

Chris is a self-proclaimed conversation starter who teaches a variety of courses both online and in the classroom. He learns best by "just having a coffee with someone" and finds the conversations he has in between conference and training breaks as "valuable learning
opportunities”. Due to his field of employment in law, Chris is a lifelong learner who continues to earn continuing education credits to maintain his professional license. Chris had an epiphany in college to become a teacher, but realized after graduating that he “hasn't really done anything” and decided to go back to school to earn a higher degree. When offered his first online course to teach, Chris took “a month or two to think about it”, because he just could not conceptualize how it worked. He prides himself on attending “all the training the college offers” for teaching in general and has had some “very good conversations” about online teaching with his dean, in which he learned how to develop audio lectures for his online course.

**Findings**

Table 4 presents a visual depiction of findings listed in order of the research questions they answered. The three sections are: a/ Learning to Teach Online through Informal Learning, b/ The Effect of Formal Learning on Informal Learning c/ The Experiences of Sudden Moments of Insight on Online Adjunct Faculty Development. A total of twelve primary themes were identified in order to answer these questions.
Table 4

Summary of Findings

1. How did adjunct faculty learn to teach online through informal learning?

   Adapting to Student Needs
   Prevailing Over Constraints
   Seeking Others Experience With Online Teaching
     Asking faculty with online teaching experience
     Actively seeking experienced college staff for advice
     Learning from the experience of external personal contacts
   Exploring Through Experimentation

2. How did formal training encourage adjunct faculty to learn through informal means?

   Developing Confidence to Practice
   Connecting Instructors to Resources
   Offering Multiple Perspectives

3. How, if applicable, did adjunct faculty experience moments of sudden insight when learning to teach online?

   Self-Discovery
   Surprise
   Rethinking
   Meaningful Linkages
   A Freed Mind

Learning To Teach Online Through Informal Learning

Four main themes were identified that capture how online adjunct faculty learned to teach online through informal learning by: a/ Adapting to Student Needs, b/ Prevailing Over
Constraints c/ Seeking Others Experience with Online Teaching, and d/ Exploring through Experimentation. The following thematic sections will describe how online adjunct faculty learned to teach online through informal learning. Select excerpts from interview transcripts will be included in each section to help explain each theme and/or property.

**Adapting to Student Needs**

The first theme of participants’ construction of informal learning is Adapting to Student Needs. This is defined as the adjunct modifying online teaching methods based on the observations of student learning processes and feedback in the online course. A pattern is evident among participants’ descriptions of how they learned to adapt their online teaching practices based on student situations. Findings show that participants learned to adapt to their online students as they taught their courses. For example, a lot of the faculty adaptation was learned as a result of online student work through discussions. Linda explains how she learned to adjust her contributions to online class discussions, so students had a chance to interact and respond to classmates without her immediate input:

I would have students for discussion forums, they would maybe make a salutation, hello class and professor and they would ask a question and I would jump in and answer it right away, without realizing that I wasn’t giving the other students a chance to test out their knowledge and application.

Jane on the other hand, did not understand how online discussions would work or have value until she saw how interactive the discussions have become. She went from offering just a few discussions, to expanding them after she saw that students view course discussions just like social media, "They go back to the first one because they re-read, they sometimes reach out to their classmates, hey do you want to partner up". Paula also mentioned that sometimes her
discussions “did not work quite the way I would have hoped they would”, so she would refine
the content of her discussions to make them more inviting to students.

Adapting to assignments was also something participants experienced. Stacy learned to
adapt to her students by the quality of work they were submitting online. She learned to “give
them as much as I could give them of me” in the form of feedback and support, regardless of the
quality of work that was coming in. Stacy said this is what really set things apart and she noticed
an increase in student performance as a result. Steven explains how he really enjoys assigning
online group work and thinks it is an important assessment in his online course. However, he has
found that some students “detest” online group work, because not all group members contribute
equally. Steven learned to adapt his online group work by introducing a group member peer
review. This was done so that each student in a particular group could review the contributions
of the others. While this was “not binding”, he did take the student peer reviews into
consideration when awarding group project grades and learned to develop this technique when
students “just kept complaining” about others not contributing to the group work.

Another concept of adapting to student needs is being flexible. Participants mention how
they learned to be flexible with due dates, assignments and other aspects of their online courses
based on the needs of their students. Paula, who has always been flexible with her classroom
students, learned that this flexibility is also needed online, since she recognizes that her online
students “have lives outside of school” and that they take online courses “because they might not
even be able to get to school”. She will extend due dates for her online students after listening to
student situations, especially when they revolve around work or family. Paula learned that some
other faculty are not as accepting of late work as she is and she appreciates the uniqueness of her
online students.
Even Mark, who described his online teaching style as very regimented, learned to adapt his course due dates based on student circumstances. "Well I actually changed my due dates and deadlines. I use to make due dates on Friday at 11:59 pm. I find however, in talking to some of my students … they like it better if assignments are due Sunday's at 11:59 pm rather than Fridays". He explains that even though he uses the weekends to grade online work, many of his students work and have other responsibilities that prevent them for meeting Friday night deadlines. He adjusted his weekly due dates after learning that his students did in fact use the weekends to complete a lot of his online coursework.

In contrast, Steven became “more skeptical of student excuses” when he witnessed that one of his best online students was “dodging bullets” as an active military member. He viewed this student as the best and most dedicated student in the class, who “never made excuses” for extensions. Steven found this experience to be “incredible” and had a difficult time understanding how the active military student was able to complete work on time, while others would “come up with excuses”.

Adapting their online communication with students was also discussed frequently in the interviews. Faculty seemed to have a preconceived notion of how online communication worked, but then refined it as they gained student feedback. For example, Jackie held dedicated online office hours so students could login and ask her questions in a live environment, but she quickly ended those due to a lack of participation. She learned to overcome this by increasing communication with her students and by sending out a longer initial email at the beginning of the course stressing the importance of her larger assignments. She recalls, "I try to make it where they know what my expectations are upfront, because I think that that helps ease anxiety and lets them know what to expect and it gets rid of some questions". Mark also learned that his initial
practice of sending out a single email reminder was not enough for online students because “they were not checking their dashboards or due dates” as much as he thought. He adjusted his communication to constantly remind students of due dates and important information because he learned that online students “want structure”. Mark learned to develop a routine for his online students, which he learned to enforce and follow as a means of “keeping the class on track and on task”. Mark learned that students would drop off or lose interest in the online course if he did not provide a routine that was consistent from week to week and was communicated well by him to his students.

Increasing the amount of online communication initiated by faculty is something that participants mentioned. Dan was concerned about “students disappearing” when they “haven’t submitted something in an extended period of time”. He learned to reach out to students through email and then by phone when he started to experience “some successes” when reaching out to students who were not submitting work. He made it a point to reach out to students after he noticed “and all of a sudden you get a contact and you get a student who thanks you for reaching out and wants to know if they can get back in the game”. Dan often questions his practice of reaching out citing a fine line between “maintaining a certain standard” and his “responsibility of retention”. Dana also increased her communication with online students when she noticed that logging into an online course may not have the same priority as coming to a class on campus, "When you are at home or working and taking online courses, that’s not your priority because it’s not the main focus in your life". Adapting to the needs of online students is central to how participant’s learned to teach online through informal learning.

**Prevailing Over Constraints**

Another theme of participants’ construction of informal learning is Prevailing over
Constraints. This is defined as learning to overcome system limitations that adjunct faculty faced when learning to teach online. System limitations include both technical and institutional limitations. In my interviews, a pattern emerged in which participants described that overcoming constraints was part of their informal learning process. Participants consistently noted that constraints stemmed from technological limitations that restricted their interactions with their online students. For example, Dana finds that technology limits her ability to “really get to know the students like you would in the classroom setting” and finds this in person interaction to be an intricate part of teaching writing classes online. Since she sees her classroom students regularly, Dana learned to keep her line of communication open with her online students and makes it a point to “check in with them periodically” and “frequently” to see how they are progressing.

Similarly to Dana, Jackie found that her humor and personality does not come across “as well” online as it did in the classroom, “Whatever I am trying to get across, doesn’t come across that well online”. She cites examples of her dry sense of humor in email and even in feedback as something that has been misconstrued by her students in the past, so she learned to eliminate most humor from her online communications. Linda also explains how body language seems absent in the online classroom and that “I have to do things a bit differently so they feel they are part of the education process”. She explains an example of not being able to review exams question by question with her online students and thinks she is lecturing to them, instead of explaining their performance on their exams.

Some participants discovered that student access constraints are common and that faculty have to learn to overcome these limitations. Steven found that students have different access to technology and sometimes “computers crash” and that information is lost. Because of this, he allows his students to attempt his online exams twice, to compensate for technology driven
problems that occur. Chris explains that not all students who sign up for an online course are ready and finds that “not everyone has access to the Internet at home”. Chris learned to overcome this by emailing his online course syllabus before that class starts to let students know what was expected of them “as early as possible”. Technology is also a barrier to some students who enroll in an online course, who do not have a computer or the Internet at home. Dana found that one of her online students was coming to campus to complete their online course because the student did not have a computer at home. Dana frequently met with the student after her in person class concluded, just to “help them out” and “felt bad” that the student had to come into campus to complete coursework that the rest of the students were completing online.

Technical constraints also appeared when faculty learned to use software that they were learning for the first time. Even with a technical background in computers and corporate training, Dan still found it difficult to overcome some of the terminology and technical jargon of teaching online, especially when it came to understanding the learning management system, or LMS and the different terms that were being used by faculty and staff. The LMS is software that allows faculty to deliver their online coursework through the Internet for students to participate in. Dan recalls, “I think sometimes the terminology is confusing, so you think you addressed an issue, because you thought the terminology was one thing, but it may have meant something else”. He explains two examples of others using the term “links” when he uses the term “websites” and while he refers to making an assignment invisible to students as “hiding”, the LMS uses the term “locking”. Dan also cites the example of learning to move from a points based grade book to a weighted grade book, where his assignments, discussion and tests all carried different weights, “You think you understand it, [weighting of grades in an online grade book], but I’m still not sure I have a grasp on it. I have been helped through it, but I am not sure that I have a total grasp
on it”. Dan went online to learn more from the instructor’s guide provided by the LMS, about the terminology being used and maintains a spreadsheet outside of the LMS just to double check that his grade book is calculating accurately.

Participants also discuss how college bureaucracy has constrained their online courses, especially early on in the semester. Linda stresses that overcoming barriers is “definitely a requirement in online education”, listing numerous example of the barriers she faced. She found that learning management systems change, textbooks change, and even college administration changes and that each change brings “a different perspective and different demands, so this all has to be factored into how I teach”. While describing each of the changes, Linda would throw her hands up and roll her eyes back as if to say here we go again. Chris confirms Linda’s experience with turnover in administration, where he felt isolated when he taught his first few online courses and did not have any classroom courses to teach on campus. He explains how turnover in his academic area was high and how at times he did not know who to reach out to for help with his courses. Chris mentions that the new hire [a new academic coordinator that staffs courses in his division] “is doing a good job … and is connecting us with more committees and just ongoing faculty meeting”. He learned to overcome his sense of isolation and confusion by participating in as many functions that the college offered to its adjunct faculty and started conversations with faculty to overcome some of the feelings he was experiencing while being away from the campus. Chris overcame administrative turnover in his division by keeping himself in the loop, an action he learned to initiate in response to the high turnover.

Jackie expresses a similar experience to Linda where her textbook and publisher has changed “a few times”, and while it does bring a lot of new learning opportunities, she has to reevaluate and redesign her course each time the book is changed. In both cases, since Linda and
Jackie are adjunct faculty, they must use the textbook assigned to them by their academic department or full time faculty chairperson. Neither has any input into which textbook they can use to teach their respective online courses. Jackie also cites that her academic department periodically changes course requirements and has introduced standardized exams which she has never used and will need to learn how to incorporate into her online course. Throughout her online teaching career, Jackie has always “used my own exams” and has never worked with a standardized exam that she is required to use.

Additional administrative processes have been viewed as constraints by participants. Paula states ongoing issues with financial aid that seems to have a cascading effect on her online course. She sees how issues with financial aid will prevent students from buying books on time or even lose access to their online courses, as “learning management systems are often tied to a college’s student registration system”. While she does not understand why this continues to happen, she did learn to overcome this constraint and push back her initial course due dates to compensate for this limitation. Laura also confirms that she learned to amend due dates for the first week of her online course, because of issues with the college bookstore and how financial aid was used for bookstore purchases. Laura recalls:

Sometimes students can't afford or just haven't been able to go get their books for the first week ... I've learned to amend dates for work in the first week, maybe assign something like introductions, where it's just something … not necessarily things they have to do within a book. I've learned after my first course … that I shouldn't assign anything from the book in the first week.

The need to overcome these constraints during the first few days of an online course is something that online faculty had to resolve and they deemed this as an important part of their
informal learning process. The limitations explained by participants were unanticipated and learning to prevail over technical and bureaucratic constraints was developed as the different situations arose.

**Seeking Others Experience with Online Teaching**

A third theme identified in this study is that participants were Seeking Others Experience with Online Teaching. This is defined as making contact with people who can provide knowledge resources for online instruction. A pattern emerged among the participants, where they described the people they reached out to in terms of seeking knowledge or advice and then learn from their online experiences. Each participant identified at least one person, if not more, with whom they interacted with in order to learn something about online teaching. The participants described the people they interacted with as helpful and resourceful, who brought an understanding to their online teaching environment that was missing or unresolved prior to the interaction. This category includes three properties that represent distinct factions that include asking faculty with online teaching experience, actively seeking experienced college staff for advice and learning from the experience of external personal contacts.

**Asking faculty with online teaching experience.** The first property of how participants learned to teach online through informal learning in this category is Asking faculty with online teaching experience. Faculty with online teaching experience is defined as gleaning advice about content and teaching processes from both full time and adjunct faculty, who participants considered knowledgeable or with more experience. In other words, participants purposely sought out other faculty from whom they would be able to pick up pieces of information. Steven often asks questions of other faculty who have taught online before, in which he referred to as “older” faculty, or those who are more senior and have more years of online teaching experience.
Specifically, Steven mentioned asking about how others break down their grading format, or how many discussions they included in their online courses. As a result, Steven has “made a lot of good friends among adjunct faculty” and attributes a sense of camaraderie among the adjuncts as important to him personally. In general, Steven likes to “swap ideas with colleagues” and finds these ideas beneficial and views conversations as learning opportunities. For example:

There was this one time I was marking student papers with a red pen for one of my face to face classes and an instructor came over and said, “Oh my gosh, that paper is bleeding”. We basically went into a discussion about how using red could basically make the student feel so devastated that they wouldn't really think about the feedback they would just feel put down. [The faculty member] suggested switching to green and I do this now even in my online assignments … I decided to use green instead of red.

Steven was very animated when telling this story, often nodding his head left to right portraying that he did not know that changing the color of his feedback would make a difference.

Some participants reached out to other faculty to test their ideas. For example, Linda seeks out conversations with colleagues who have experience with online teaching. Linda finds value in asking questions, “bouncing around ideas” and “picking their [colleagues who teach online] brains”, when it comes to learning new or different strategies to teach her online courses. Linda feels the need to build a sense of community among the other faculty who teach the same course online, so she made it a point to meet as a group with the other faculty in person, so they could collectively “go through things and talk about ideas”. She mentions that the time she spends with these colleagues is “time well spent” and that the group leaves “all learning something new”. Dana also learned from other faculty when she felt a need to do something “in a
different way” or “a better way”. She would also ask questions like “what would you do” to address certain situations that stemmed from how to present certain learning objectives to her online class. In Dana’s case, she interacted with faculty who had less online experience, but seemed to be “doing different things”, a contrast to what she was doing. She was addressing learning objectives through slides, while her colleagues were presenting audio lectures in their slides, with strategically embedded links, which Dana took a liking to and “so have my students, they love it”.

Reaching out to other faculty has been described by participants as important. Dan also provides a clear example of how his interaction with other faculty was integral for his learning, stating they “helped me become a better online teacher”. Dan explains that reaching out to other faculty for help is something all new online should do, explaining that “Sometimes you don’t allow yourself to reach out for guidance, because, I’m like, let me figure this out on my own”. When he first started teaching online, Dan was hesitant to reach out to other faculty for help. Dan cites that adjunct faculty are sometimes unfamiliar with the college and need to know who they can reach out to and for what types of assistance. Stacy also learns from other faculty and suggests a sense of togetherness and that sharing ideas is vital to her learning:

The biggest thing for online teaching is opportunities for instructors to have dialogue with others who are in the same boat, that are doing the same thing, that have the same experience. I think it stands true for the seated classroom also, but I think for the online environment sharing ideas and sharing struggles is the best way to grow other than training. I think that just knowing sometimes too, that you're not alone.
Prior to her first online course, Stacy reached out to the full time faculty member who was present during her interview with the Dean and was able to gain some knowledge from the faculty member, since she “taught the same course I was going to online”. Stacy mentions that because of her reaching out, she can “rely” on this full time faculty member for any questions that come up and feels comfortable interacting with them.

**Actively seeking experienced college staff for advice.** The second property of participants' informal learning in this category is actively seeking experienced college staff for advice. This is defined as asking college staff for advice about how to handle situations and to understand regulations as they pertain to online teaching. Examples of experienced college staff mentioned by participants includes deans, assistant deans, supervisors, instructional designers, information technology and online learning professionals. Participants looked to college staff for various types of advice, especially when they weren’t sure about how to do a task in their online course. Laura mentioned that she learned the benefits of using rubrics, which developed out of her “fear and worry” of failing students. When Laura started to teach online, she did not understand completely how to grade an assignment, because she has never assessed student work before. She did not want to be “that” instructor who “just throws points at an assignment” and sought to learn a more polished approach to grading. Laura asked her supervisor who taught online courses in the past, who suggested the use of rubrics, which the supervisor has used successfully. After learning from the supervisor about the purpose of rubrics, Laura introduced rubrics into her assignments and discussions. She felt more comfortable grading her student’s work because she had “a guideline to go by”, rather than just subjectively issuing grades to the work her students submitted.
Both Mark and Chris mentioned that it is easy for them to start conversations with staff at their colleges. Mark describes an integral part of his learning process to just talking with online technology people, where he would "seek the advice of somebody who was an expert [on college staff] … or that you can learn from, or somebody that can clarify something that I might not understand". Mark references an information technology employee for helping him learn how to use a new LMS quickly and that he often stops by to talk to this person “once a week”. Steven also finds it easy to speak with his dean who has taught online courses before. His dean has provided him with some ideas to situations that Steven was confronted with such as student plagiarism and excuses as to why students did not submit work on time. By learning more about the capabilities of the LMS from the dean, Steven began to offer both a deadline and a due date for his work, where the due date was the actual day the work was due and the deadline was usually “a day or two later” to allow for late work to be submitted. Prior to this knowledge, Steven just set a start and end date for each of his assignments. Steven found this advice to be “helpful” and accepts late work but with a deduction of points, viewing this as a second chance for students to submit work and “earn something”.

Seeking advice from college staff early on in the learning process was valuable to participants. Jackie took comfort in initiating conversations with her assistant dean and an instructional designer who helped her "get organized in the beginning". Jackie attributed her interaction with an assistant dean and with an instructional designer as a real source of influence in helping her develop her online teaching skills. In this example, support was handled two-fold. The instructional designer helped Jackie with more of the technical aspects of online course design, while the assistant dean took the time to explain content presentation to meet the
different learning styles of students. The assistant dean assumed this role because understanding the different student learning styles “was a hot topic … with the assistant dean”.

Participants describe conversations with college staff as informative. Dana and Laura found their interactions with online learning staff to be enlightening. While Dana mentioned that she was shown "the basics" of how to use a learning management system, Laura was shown a "general outline" of what an online course should look like. Laura attributes her initial interaction with the director of online learning as a valuable learning experience when she first learned to teach online, “Showing me exactly how to set up courses, showing me how other faculty had set up their courses, just so I can get a general outline of what it should look like”. Laura’s institution did not have any formal training in place when Laura was asked to teach online for the first time. Prior to this interaction, Laura’s only frame of reference was in teaching face to face non-credit courses, which she did not enjoy and thought that online teaching would be a better format for her. She felt somewhat uncomfortable lecturing in front of a class full of students who were all just “staring at her” and finds that online teaching is a better fit for her. While Laura shared this story of her classroom teaching days, she appeared uncomfortable and nervous as if she was reliving that experience. She stood up half way out of her chair twice within a very short span and sat back down in two different positions, a mannerism she did not display at any other time during her interviews.

Out of the ordinary circumstances prompted Linda to learn from online college staff as she was confronted with "interesting" or "unusual" student situations that the college did not have a "real policy or standard" to follow. The three staff members from the online campus were, "Always very good about offering perspective to handle it in a way I could, that it was equitable and fair for the student, but that I didn’t get taken advantage of and the college wasn’t
compromised”. Linda sought advice about how to handle students who do not login “regularly” and students who were submitting assignments and taking tests, but did not contribute to discussions. Linda mentioned that her academic department was not able to answer these questions and that the college did not have written rules or best practices about how to handle situations that were “unusual”.

**Learning from the experience of external personal contacts.** The third property of how participants learned to teach online through informal learning in this category is learning from the experience of external personal contacts. This is defined as learning that took place while participants were in the company of others, where learning was not expected, but when they had the opportunity to learning, they took it. The learning that takes place from personal contacts as described by the participants was incidental, since the learning was unplanned or casual, and based on circumstance. Learning from the experience of external personal contacts was learning from people such as friends or family members, or people who participants met in passing. Linda refers to numerous conversations that she has had with her friend who teaches online for a university and is also working in the business field:

She's very different. Her mindset is very different than mine. I can ask her questions directly and so she will ask me things, but she has a lot more experience with online engagement than I have, so she tends to be more of a resource for me then I am for her.

Linda also mentioned another friend who is a director of online learning at a university whom she has known for three years. She finds her to be a "wealth of information" and "listening to her perspective and getting resources from her is ... a big help ". Linda shared a story about how they compared their respective experiences of teaching community college and university students
and Linda was able to learn that some of the issues she experienced with community college students was “different, but in a good way”. Her friend provided Linda with advice about how she could restructure assignments and her grading policy to encourage students to “submit quality work” and how she should consider appreciating “quality over quantity” when it comes to the number of assignments Linda expects of her students.

Similar to Linda's experiences, Paula cites frequent interaction with her peers at the high school level, where she was teaching when she first started to teach online at the community college level. A great part of this interaction revolved around “developing new ways and learning different things to do” as she juggled in person high school teaching with online community college teaching. She was able to learn some new technologies to “modernize” her online presentations. Mark also shares an interaction where he went to help another instructor get “use to the new LMS” and in turn ended up learning from this instructor a new online content resource that he was able to share with his students. He found the resource to help students make more credible discussion posts and saw that students were referencing the resource a lot.

Participants also mentioned discussing their online experiences with family members who had experience with online teaching. Laura's father teaches hybrid courses at a university, so she learned how he formats his online lesson plans for his hybrid course, which takes place half in the classroom and half online. She learned to structure her courses in a step by step fashion, where she “leads” students through a learning path, rather than just “put stuff out there for them to do”. Jackie also has had conversation with her husband who teaches online and in person at a university. Jackie finds that the two go "back and forth" when discussing issues such as student expectations and grading, student perceptions of online courses and how to become more clearer to students without being "disrespectful or pushing them away" in an online course. Jackie’s
conversation with her husband are comforting and “helpful”. Jackie also explains an experience where she talks to her friend, who is of a different culture and religion and runs textbook information by her to make sure it is indeed “culturally relevant” to what she is teaching her students. The two have had numerous conversations over the years and Jackie seems to really value this relationship by describing it as “great” and “relying on her” for relevant information. Jackie attended a cultural festival with her friend and was able to experience the culture and felt better about portraying it in her online course, since she was able to “experience it that day”. She also attends some religious institutions with her friends and finds these experiences to be helpful in clarifying some subject matter in her course, since she is not part of these religions.

Participants also mentioned how meeting people in passing and striking up conversations about online education has been beneficial to their informal learning. Chris met a doctor who does online training and education for a medical school and remembers how “he and I have spoken informally several times over the years” about online teaching. He learned from this person who was more experienced and Chris asked questions about online discussions, about online audio lectures and just about the business side of online education. These conversations also helped Chris “wrap his head around it”, referring to his hesitancy to teach online, since he was not able to understand how online teaching worked and what he had to do “to make it happen”. Stacy found herself learning from casual conversations of people that she has met in passing at family outings, who have taken online courses. She asks them specifically about “what worked and what didn't work”, as well as “how do you like it [the online course] and what do you think about it [the online course]”. Stacy recalls how one person mentioned that they took an undergraduate online course and that the lectures were “horrible and boring” and “all in monotone”, which the person found disappointing and “hard to pay attention to”. Stacy took this
information seriously and made sure to “liven up” her presentations to avoid the criticism of having lectures of this type. Learning from others is an integral part of how participants learned to teach online through informal learning.

**Exploring Through Experimentation**

The final theme identified in this section is Exploring through Experimentation. This is defined as developing online teaching experience and knowledge through trial and practice. Participants describe trying as applying ideas or using methods that they attempted in their online courses. At times, this led to some participants having questions, which led them to seek others. They also often characterized practice as “trial and error”, a repetitive activity that they did alone, without the assistance of others. All participants except for Paula mentioned that they learned by “trial and error”. Dana explains trial and error learning as an exploratory process when she learned how to use a learning management system, "I learned very well by doing, so just sitting down and trial and error, sitting down trying to figure it [the LMS] out on my own … exploring every tab on the side [of the LMS] every tab on the top". This type of repetitive action increased Dana’s ability to maneuver through the learning management system, which was an important milestone for her as online adjunct faculty to master. Dana stated that she learned the LMS “on the job” that trial and error helps her “refine” or “ax” ideas, depending on how well they work or do not work in her course. Jackie immediately identifies trial and error as the primary way she learned to teach online. While Jackie did not identify any specific instances, she does state that she is a better teacher now then she was in the beginning, by trial and error practice, where she learned “how things work and how things are going to work”. In the second interview, Jackie did clarify that she was referring to the LMS and that she did not receive any training in the LMS when she started teaching. She was expected to “just learn it” on her own.
Similarly, Laura shared an example of learning by trial and error when she refers to modifying her online quizzes:

I've toned down some of the quizzes. Obviously quizzes are never popular [with students], but in the online format I do include a few, just to force them [the students] to not go through the books sometimes [just] looking for those answers, but I've taken some out along the way ... I've learned what works and what doesn't work for the students.

It took Paula several semesters to hone in on how many quizzes seemed appropriate for her online course and gauged this by watching over grades and student emails.

Participants who learned to teach online many years ago when online teaching was not as established as today, also recall undergoing experimental exploration. Mark was very vocal about his exploration and practice tactics, attributing his early entry into the online teaching environment as the main reason why. At that time, many colleges were just starting to develop an online courses, so he learned by trial and error how to navigate the LMS, while learning management systems were still in their infancy. Mark has worked with four different learning management systems over the years and continually moved his one arm and hand up and down and then to the right when describing his trial and error experiences. His hand movement to the right was interpreted as an error, or moving on from something that did not work. The only other time Mark exhibited this motion was when he described his course structure and how important it was to him and his students. In addition, Mark was adamant about his process of adding content to his online courses which he described all as trial and error. Due to the vast amount of educational resources available on the Internet, Mark found that the process of adding “worthwhile” or applicable content was by trial and error. By searching for and by reviewing each learning resource he came across, Mark was able to learn to determine what content was
applicable to his online students and what wasn’t. He reveals that this is an ongoing process in his online courses that is time consuming and constant. However, he states that in order to “master” an LMS you “put in the time” through trial and error.

Participants also mentioned how practicing and exploring within an LMS helped them develop their online teaching skills and practices. Jane describes her practice and interaction with the learning management systems as repetitive, since she often had to go through the task of accomplishing something several times before she understood it or that she could remember how to do it next time. Jane recalls, "Well I practice at home. I'm going to try and I would sit there and work through [the LMS]. I would play and work and submit, play work submit". In this example, Jane refers to her inability to add a complete assignment or discussion question to her online course during her first attempt. She kept going back to these because they didn’t “save just right”, where she either forgot to add a point value, or a due date, or had trouble formatting the body of the assignment. She admits that she would attempt the same task up to seven times, because she would "sometimes leave out that critical step" that would prevent her from being able to repeat a successful attempt at accomplishing a task in the learning management system. Jane showed a lot of emotion while describing this experience, often re-crossing her legs and pointing with her index finger down into the table in front of her. She reiterated that she had no technical experience prior to teaching online and that it was very difficult for her to learn the basics of an LMS.

During her practice, Jackie learned how to add things to her online course "on my own, just from, through trial and error, so what taught me the most is teaching it for a while". Jackie reiterates the importance of the aspect of time in practice, which resonated with many participants, that it takes time to “get things right”. She was able to view a course shell from a
previous instructor who taught the same course online and she was able to see what was done to develop her own course by trying new and different things such as adding and removing course content and modifying her student assessments. Laura also expresses she also engaged in “a lot of trial and error … to see how things [her course modifications] play out in action”.

Contrary to the other participants, Paula did not experience or mention trial and error learning, which she attributed to her years of technical experience as an analyst and programmer in information technology. When asked about any trial and error, Paula stated that she did not find anything “difficult about learning to teach online” and that “everything just seemed to flow” for her.

Section Summary

This section described the four central themes of how online adjunct faculty learned to teach online through informal learning: a/ Adapting to Student Needs, b/ Prevailing Over Constraints c/ Seeking Others Experience with Online Teaching, and d/ Exploring through Experimentation. The category of Seeking Others Experience with Online Teaching included three distinct properties which included asking faculty with online teaching experience, actively seeking experienced college staff for advice, and learning from experience of outside external personal contacts. Even though the categories and properties in this section are exclusive, they do show connection. For example, in order for a faculty member to overcome a constraint, they must be willing to seek advice or practice to overcome the constraint they are faced with. The relationship of these themes shows the connectedness of human interdependency in relation to adapting to students, prevailing over barriers, seeking others experience and exploring in action, as experienced by the participants of this study. Although the themes had distinct definitions,
elements of all four themes worked in unison as part of the informal learning process exemplified in this section.

**The Effect of Formal Learning on Informal Learning**

Three primary themes were identified that capture how formal training encouraged faculty to learn through informal means: a/ Developing Confidence to Practice, b/ Connecting Instructors to Resources and c/ Offering Multiple Perspectives. The following thematic sections will describe the effect of formal learning on informal learning as experienced by the participants of this study. In other words, this section will describe what formal learning did for the participants and how it contributed to their informal learning. Relevant excerpts from interview transcripts will be included in each section to help inform each theme.

**Developing Confidence to Practice**

The first effect formal learning has on informal learning is characterized by Developing Confidence to Practice. This is defined as the effect of encouraging faculty readiness to apply concepts and ideas during and after formal training. Developing the confidence to practice and try new or different things shows a process of growth, where participants describe before and after scenarios as they pertain to their formal training experiences.

Taking part in LMS and QM training seemed to be a catalyst for developing confidence among the participants. Confidence building was most evident with the experiences of Jane, who is now “about eighty percent confident” in her ability to maneuver through and figure things out in the LMS. Prior, Jane had come into online teaching with “zero skills” and recalls that formal training allowed her to “attempt more after the sessions were over”. Jane referred to her LMS training, a three hour session at a community college and an eight hour session at a university as “helpful … in so much as they enlightened me and they built my confidence”. The sessions gave
her the confidence to introduce video clips into her online courses, because she now knew that she was “capable of doing it” after being showed how to in the LMS training sessions. Jane went on to earn post-doctoral credits in her field through an online program, which she said “would not have been possible” without her formal training. Formal training helped Jane to “not quit” online teaching which she may have done without it. Dana also found her LMS training sessions valuable because they “go hand in hand with confidence building”. Dana explains her formal training experiences as, ”The more you feel confident trying something, then that inspires you to go and try something new, or learn something new and gives you the confidence to try something new, since someone else was successful at doing something new”. Dana learned to revise her assignments which have usually been writing assignments into some online quizzes and other non-traditional forms of assessments after learning the capabilities of the LMS and being given the confidence to “try something new”, “to do things better” and “to take advantage of short cuts” that she was not aware of before. For example, Dana mentioned that she was unaware that the LMS graded certain types of quizzes “automatically” and thought she would have to grade the quizzes online like she would a paper and pencil test. The short cuts mentioned, allowed Dana to upload “a lot of files” at a time, rather than “one by one” which she was used to doing.

It is important to reiterate that the confidence to practice what was learned in formal training sessions was developed over time. In other words, it was not just as simple as attending a formal training session and then going right out and implementing what was learned. Formal learning acts as a seeding process that gets faculty started or helps increase their capabilities which they then continue to develop on their own. Jackie expresses her confidence building that took time to develop as she “learned how things worked” and how she was able to relate the new
feature and capabilities to “doing things easier”. Jackie recalls that her formal LMS training exposed her to things “she did not know about before” and that she learned a lot about what she could do for her future online courses. Laura also explains that formal training made things “quicker and easier” for her, especially in setting up her online courses for the next semester. Dan expresses a benefit of formal training as an opportunity to learn something new, but just as important to him, is the rapport building he developed with the people who taught his LMS training session. He is “now more comfortable turning to these people … they know my name and I know them”. Dan explains how formal learning helped him understand certain aspects of the LMS, but now he “does not feel like a stranger to these people” when he asks them for help.

Another type of formal training that only a few of the participants mentioned was quality matters training, an eight hour formal session that explains best practices and related techniques that can be applied in online teaching. Paula credits her QM training as a confidence building process:

learning from and being involved in all that [QM training] and taking that course really let me figure out what you need to tell students, to cover all of the bases, since you are not in front of them for them to ask you questions, so that was another part of learning to teach online, which was very valuable.

After her participation in QM, Paula had the confidence to implement a completely revised syllabus that helped answer student questions before she was confronted with them and she was able to better align her course to learning objectives. This was a best practice that was explained during QM training, which confirmed Paula’s earlier inclination that she needed to “solidify her syllabus with more information” for her online students. She hesitated until after the training, because she did not know what the college policy was on adjuncts and them moving too far away
from master course syllabi, which are provided to adjuncts by her institution. Stacy recollects her participation in QM as a way of not becoming stagnant. Stacy found the formal training to be “interesting and exciting” and as an opportunity “to do different things” in her online course. She found it to be a process of “renewing my commitment” to her responsibilities as an online instructor and therefore “growing in confidence” to try new things and “avoid just going through the same routine”. Stacy also describes her formal training as a process of “checks and balances” and it keeps her “on my toes”, because of the confidence it gave her to continually improve her online course. However, Stacy found her LMS training to be overwhelming and did not matter in the moment when she needed immediate assistance because “just remembering how the LMS worked … was really the biggest obstacle”.

Contrary to the other participants, Linda did not find formal training to be a confidence builder, but still found formal training to be “somewhat helpful”. Linda cites, "the spontaneous informal, you know where the dialogue comes out and you can just banter, get to know somebody, those are very, very helpful". Linda found that her formal training was not as beneficial or as helpful as informal learning, mostly talking to others and learning from their experiences and opinions. Linda remembers one formal training session where a book author presented about online teaching and student engagement, which was not helpful because it was geared towards online graduate students. She found this session to be too rigid and found it difficult to “translate or transfer” back to what she was doing. However, when probed further, her “takeaway” was about online responses and “the significance of student responses in a timely manner and how it’s much more significant if they don’t have your presence”. Linda did go out on her own and read up on the Internet about online undergraduate student engagement and was
able to find the information she needed as it pertained to the presence of an online instructor in undergraduate online education.

Some participants mentioned that formal training was either not offered to adjuncts or that it was offered after some participants started to teach online. In the case of Laura, there was no formal training at the time she began teaching online and that a formal LMS certification course was mandated a few years after she started online. While she did take the certification, she already knew the information and would have benefitted from the training if it was offered when she started teaching online. The lack of formal training made it necessary for Laura to participate in informal learning. She said she would have “asked a lot less questions” if this formal training was offered in the beginning and suggests that formal LMS training should be expanded to include instructional design, an area that she struggled with. Jackie went through an in person training course that “only” dealt with the LMS and she “wishes there was more” formal training. Steven, who took a six week e-learning 101 course online as a student, wished that more technologies were covered in the course.

The lack of formal training can make adjunct faculty feel removed from the community colleges they work for. Chris has a unique perspective in that formal training helps with adjunct isolation, as he has always felt isolated from his college, when he compares himself to full time faculty who “are always there [physically at the college] every day”. His inclusion in both LMS and QM training made him feel as if he was part of the institution and acted as a confirmation that he was “pretty much on the mark with what I should be doing”. He also views formal training as “great” but “temporary”, where his reliance on “formal learning kind of goes away” and that he “does more informal learning now since I am established”. However, Chris does reiterate that he continues to participate in “self-training and self-improving”, which has helped
his sureness that what he is doing in his online course is meeting some level of standard, as outlined in his formal training.

**Connecting Instructors to Resources**

The second effect formal learning has on informal learning is Connecting Instructors to Resources. This is defined as the effect of matching faculty with new resources as a result of participating in formal training. In other words, formal training is the driver that establishes connections between instructors and resources. Several of the participants mention a variety of resources that they were connected to through formal training. Some mention online resources such as blogs and educator forum sites that they were unaware of prior to formal learning, often mentioned by others in the class. Formal training sessions helped provide materials that involved the content of the class, but also anticipated future informal learning needs of the participants. Some participants mention that their QM training provided them with folders of information as take away content for future learning. After LMS training, some participants received contact information, lists of resources that reinforce their formal training and lists of sites that faculty could go to, to learn more about online teaching. Linda specifically mentions the value of online resources, where she learned how to improve her online course based on information that other educators have posted. “I wanted to improve my skills. I wanted to be better, so I sought out opportunities that were around me”. Linda identified her need to improve by seeking out online resources that she became privy to during and after formal training.

Mark also mentioned his use of online and scholarly journals as a source of learning, especially since he also identifies as “constantly and continually seeking learning opportunities to improve my online courses”. Mark found his formal training to be “useful” because he was put in touch with these valuable resources. The use of search engines to find relevant content
such as slide shares and lecture information for his online course was a learning avenue for Mark, as he was concerned about how useful some of the content in his online course really was to students. Mark reveals that he needs to keep his course content current and relies heavily on the Internet for this purpose. He stated that even if formal training is not perceived as useful by others, it can still act as a “refresher course” and confirms that “you can always pick up something that you forgot”. Jane also finds formal learning as a great way to learn and to “not forget how to do things [tasks in the LMS]” as she retook LMS training “a few times” as found that each time she was connected to another online resource that “helped again”.

In line with this theme is Stacy’s reliance on various articles and publications pertaining to online teaching that she sought out after she was given a list of resources as a hand out to “see what's on the horizon”. Stacy even joined “a few” online groups that were geared towards college adjuncts or online learning, resources mentioned at her QM training session by other faculty in attendance. Jackie found the instructor website and online lab site from her text book publisher to be a valuable learning resource. Jackie initially went to the site to learn how to develop discussion questions for her online course, as well as to better understand how to grade and assess the student responses, when she became aware of the resource through formal training which was provided by the book publisher’s sales team. In addition, Jackie also joined online forums for online teaching, which connected her to other faculty, asking for help with developing questions for online discussions, as well as how to grade student responses.

Formal training can connect adjunct faculty to resources to resources that were previously unbeknown to them. Steven voices a very profound perspective recalling that “the online recordings available through the library, I didn't know they existed” until after his LMS training. These online recordings were a series of how to videos geared towards helping faculty learn
more about the online resources that are available to them through the library. As Steven described his experience, he shrugged his shoulders and opened up his hands as if to show he was literally unaware of these resources before his formal training. By connecting to these resources, Steven was better equipped to refer students to writing resources and learned that his institution subscribed to plagiarism software which he began using immediately. He also says that formal training provides him with “new toys to play with”, referring to various software and applications that he is now aware of after taking the training. In particular, Steven refers to audio recording software, which he plans to record his own asynchronous lectures in the near future, but admits he needs more assistance in “getting started”.

Come participants received lists of resources that they can access after they completed their formal training. Chris’ connection to online resources during his QM training was unique. He was given a list of links to online resources by the QM trainer at the conclusion of his training. The links were resources about course design and best practices, which he utilized by visiting them and bringing back ideas into his online course. He credits one of the resources for helping him “strengthen my online discussions” and “increase student interest”, simply by following suggested guidelines. Even though the guidelines were written for a general purpose, he was able to “model them” to the discipline he teaches. Chris took this link concept and updated his discussions with a requirement where students would have to “introduce a link to a relevant topic” for a class discussion. As students brought content into the discussions, it “really opened things up” and he saw how these course discussions would “spark other things”, just like the ideas he was able to generate from the links provided to him.

Participants also felt a stronger connection to the people of the institutions where they received formal training. Dana mentions that at her institution, the online learning staff actively
sends out how to videos and tutorials that she found useful after she attended LMS training. Dana was able to learn from the resources that were emailed to her because she opened the emails and “was able to utilize the information that was provided to me”. Prior to her participation in the LMS training, Dana was not on the email list and had difficulty connecting to and finding helpful resources. After her formal training which was given by online learning staff, she feels that she has “very open dialogue” with them and that the “encouragement to reach out is always there”, noting that she comes on campus to learn new technologies and leaves the sessions “wanting to do more” in her online course.

Participants also mention being connected to resources that they were able to incorporate to assist with certain aspects of their online courses. Stacy was able to connect with a librarian after her formal training, when she was given the idea of “embedding a librarian” into an online course during LMS training. This essentially means that a librarian can be added to an online course to help with or to teach an aspect of the course for a duration of time. In this example, Stacy met with a librarian several times and then “added a whole new element” to her online course. The new element was a peer review paper where the librarian became a co-instructor in the online course for a period of time while students worked on the new assessment. Prior to the training, Stacy admits she “did not know this was even possible” and continued to search for example of adding other staff and even “guest speakers or presenters” to her online course. Laura was able to make all sorts of connections during and after her formal training sessions, because she enjoys interacting with people and purposefully tries to “glean information” from others during any interactions that see comes across. She listens to how others “run their courses” and then tries to pick out information that she “can run with”. Chris, who also values interacting with people and likes to start conversations with others, recalls a similar situation where after his
participation in formal training, he was “connecting with more committees” and was participating in “ongoing faculty meetings” which he found helpful. Chris continues to follow up with connections he made on campus and looks forward to any formal training opportunities evidenced by his confirmation of “I don't think I have missed one” and that these sessions are “a high point for me personally as an adjunct because I really get a lot out of those”. He learns “something new” with each session and “tries to apply the new stuff [what he learns]” to improve his course.

Formal training connects adjuncts to resources that helped participants look at their online courses more expansively. Linda realizes that her formal training sessions actually “pointed me in a direction to where I’m like now I have to check this out, this online magazine or now like this book and these things are going to be great … just giving me more ideas and really it [the formal training] just kind of broadened my experiences”. She credits formal training to where “they have given me more resource opportunities, more opportunities to explore what's out there so I can read and learn on my own”. Linda, who prefers informal learning over formal, realized that this guidance of being pointed into a direction helped her better learn from resources that others have benefitted from and she felt grateful that these resources were shared with her. She recalls walking away from the sessions “with a lot to look forward to”.

**Offering Multiple Perspectives**

The third effect formal learning has on informal learning is Offering Multiple Perspectives. This is defined as building in opportunities for faculty to understand and to identify with the standpoint of others as a result of participating in formal training sessions. Learning from multiple perspectives demonstrates that participants learned vicariously through others and that learning is not a solo activity. This learning created a forum for adjuncts to learn from the
experiences of others and to take into account their views about online teaching, as they engaged in perspective building.

Dan describes how a multi-day online learning conference that he attended really helped him connect with different faculty perspectives:

I got a chance to listen to a lot of other adjunct or full time faculty. A lot of other users of the course management system tell and demonstrate how they use the system. It's hard to exactly pinpoint an actual technique or something, or a point I pulled out of it, but it was great to listen to other people about how they use it [the LMS] and you get ideas from that.

As a follow up in his second interview Dan was probed to provide examples of what he learned and recalled how a faculty member at another institution showed how to share course content with other faculty “by making it [the content] public to other faculty at my college”.

Being able to access sample online courses served as a valuable perspective building exercise in online course development for some of the participants. Jackie was in a unique position, as she was able to gain access and review an online course from another faculty member who taught the course before at her institution. Jackie asked to see the online course, so that she can get “a better understanding of how an online course was setup”, “how the material was presented” and to better understand “the overall flow of an online course”. She wanted to go over the course and get oriented with what an online course “was all about”, since she was going to teach online for the first time. The course served as an example which helped Jackie “get the course going” and without this perspective, she claims “it [setting up the online course for the first time] would have been a lot harder to organize”. Chris, who had a hard time conceptualizing how online teaching and learning really worked, explains how “the first thing I did was ask
permission to look at other courses, because I wanted to see how other instructors had done it”. Chris struggled to accept an online teaching assignment for the first time because “it took me a month or two to get my head around it”. He received LMS and QM training and “felt better” after he was able to see how other faculty were teaching online. He asked faculty to see their courses and was granted access to a business course and a history course “to see how they line things [course activities and assessments] up. He learned to create audio lectures from one of the sample courses he viewed and started recording audio lectures “right off the bat”, since he gained this perspective from one of the faculty members, who had success with audio lectures.

Some participants built perspective by being a student in an online course themselves. After completing his six week online e-learning 101 course, Steven gained perspective since he played the role of student in this formal training session. He developed a “newly found compassion for students that have limitations or the limitations they may encounter” as a result of what he experienced in the course. He learned how detrimental broken links are in a course, as well as how an online students may feel when communication is “not always there” and when it takes “a long time to receive a grade or even feedback”. Steven explains “I think every online instructor should have this … of what it is like to be a student in an online course”. This is a valuable perspective that not many other participants talked about.

Participants mention that their experience as an online student has been beneficial to their development. Laura, Linda and Jane have taken online courses as students, but did not mention any negative experiences or suggested that online faculty should know the online student’s perspective as Steven did. Linda mentions that in her online course, she had an older instructor “in his seventies” who ran a very engaging course with “very diverse assignments”, which inspired her to “change things [course assignments] up” in her own course. She admired how this
“older man” was proficient with technology and ran the course so “eloquently”. Laura was given formal online student training before she started her online doctoral program and thought this was “a good idea to offer the training up front”. She was able to capture the expectations of herself as an online student, but also gained perspective about how important it is to have students prepared with “at least LMS training” before they take their first online course. Since her institution does not offer up front training to online students, which is something that she plans to suggest to her dean. In her experience as an online student, Laura learned the value of online group work and developed a new understanding of this, by keeping track of how her group dynamics played out over the semester. The perspective gained here has encouraged Laura to try online group work the next time she is assigned an online course. Laura explains some “rough experiences” when she participated in group work as an undergraduate student and “did not want to go there [introduce groups work online]” with her online course, since she did not think “online group work would work”.

Likewise, Jackie took a non-credit online course “just for fun” and found it insightful on two fronts. One, “the instructor was very good at getting back to each student in the discussions”, an attribute that she very much admired. Two, she met some “nice people” in the course and was able to learn from some of the ones who were also teaching online from around the country. Her perspective building led her to become “more active” in her discussions and encouraged her to “switch up assignments” from just papers to various puzzles and definition building exercises which the students liked.

Even though Mark was an early entrant into online teaching many years ago, he still finds value in attending formal training sessions because he gets to interact with technology coordinators and other faculty “just to brainstorm and get their advice, to get some information
from them”. This also opens the door for him to stop by and chat, which he views as an extension to training, where he met a lot of these people. He has been able to “pick up a lot of little things [tips for online teaching]” from these conversations and sees each tip as something others have experienced. A lot of what does online is a result of his participation in a teacher training program from the 1990s where he was taught to “explain everything” in great detail to his classroom students. He has built on this perspective for his online courses and has recalled certain practices that helped him stay regimented, so students understand both “why and when something is due”. He learned the importance of “constantly being there for his classroom students”, which is a tactic he practices online and is “very proud of”.

As an adjunct who has never received formal training to be a teacher, Stacy gains perspective from full time faculty at her community college:

I kind of feel like when I'm in [the formal] trainings, when I talk to full timers, their philosophy is so much more thought out than mine. I mean, I just go in and teach and they kind of have this whole thought process behind that [the way they teach online courses] and I don't have that.

Her perspective was gained from QM training, in which she was one of only a few adjuncts present. The QM trainer happened to also teach the same discipline as Stacy and has been teaching few years longer than Stacy, so this more established perspective helped Stacy rethink certain aspects of her online course. Stacy admits that she continues to “seek out crash courses and workshops” to “broaden her horizon” and has gained perspective into better course planning, as well as how to deal with student situations. Stacy also mentions that she was able to listen to “how others did things [develop assignments] in other disciplines” and while not always applicable, she was able to bring some ideas back into her course, citing an example from an
online psychology course, where students were journaling online to keep track of their moods and behaviors over a period of time. Stacy finds value in others people's perspectives and confirms that "I try to get other people’s perspectives in any way that I can”.

Some of the participants also build perspective by participating in formal training at four year institutions. For example, Jane took an eight hour training course that ran over a six week period, which featured some new aspects of online teaching that she did not try before. Jane was also able to learn a new LMS, which was different than the one she used at the community college. Learning the second LMS was “much easier than the first one” because she brought in this prior knowledge and was able to build perspective by working within two different LMS’s and with a different group of faculty. She was amazed that her instructor was teaching the course “from the mountains” and that the students in the class were participating “from different parts of the state”. Jane gained perspective about the value of live synchronous lectures, in which she could see “everyone else in the class” and was able to “listen and learn intently” from online lectures given remotely. After seeing how successful the live environment was to her, Jane started a live chat with her students just to get to know them and plans to hold more synchronous sessions just like her training instructor did. She even asked questions about the technology and the trainer offered her some tips after the class concluded. Jane admits that “this is want I needed, to see it live, to see it work …to see how he was using it”.

Learning from multiple perspectives was an opportunity for some participants to learn from the success and failure of others. Dana recounts how her LMS training kept her close with other faculty who she has known for years. This circle of three instructors makes it a point to meet and discuss “battle stories”, recalling their days from teaching televised correspondence courses and their transition to online teaching. She “sort of lost touch” with them for a while, but
“became closer again” when they all attended LMS training together. While the three instructors all teach different subjects both online and in the classroom, her perspective has been built on the successes and failures of her two peers and the information they share about their individual experiences. One failure that was pointed out to Dana was how one of these colleagues was “closing a prior lesson plan online too early” and that students were complaining that they were no able to access previous lesson plans and only had access to the current one. Dana ended up restructuring her online course from a weekly format to a unit format which she “just left open” so students could go back and review previous information.

**Section Summary**

This section described the three primary themes that captured the effect of formal learning on informal learning with online adjunct faculty: a/ Developing Confidence to Practice, b/ Connecting Instructors to Resources and c/ Offering Multiple Perspectives. Even though the categories in this section are exclusive, they do show a connection. For example, formal training may not cover everything the participants needed to know, so they took risks in order to develop more knowledge. At the end of formal training, it led participants to grow their confidence to practice and apply the new knowledge that was learned. Apprehension subsided, while confidence grew. Formal training steered participants into a dynamic learning environment which they were able to grow with, by being connected to resources. As the participants learned from perspectives, they began to try new things in their courses and applied the ideas and concepts that were shared with them. The relationship of these themes shows how important formal learning is as an anticipator of future informal learning needs, so learners can further develop their online teaching acumen as explained by the participants in this study.
How Sudden Moments of Insight were Experienced by Online Adjunct Faculty Development

Five central themes provide answers to the research question that illuminate how sudden moments of insight were experienced by online adjunct faculty development. Adjunct faculty experienced sudden moments of insight as: a/ Self-Discovery, b/ Surprise, c/ Rethinking, d/ Meaningful Linkages and e/ A Freed Mind. The following thematic sections will describe online adjunct faculty’s perspectives on their experiences with sudden moments of insight as it pertains mostly to their development as online instructors. Participants were asked questions about how and when they experience a-ha moments, as they pertain to online teaching. In addition, follow up questions were asked about a-ha moments in general and the process or steps that took place before, during and after these moments occurred. Descriptive excerpts from interview transcripts will be used in each section to help describe each theme.

Self-Discovery

Participants describe the impact of sudden moments of insight in their development process in terms of Self Discovery. This is defined as becoming aware of new knowledge about one's inner workings, beliefs, and actions. Stacy offers her perspective on self-discovery calling them her “moments of self-discovery or classroom discovery or teacher discovery”. She says “I've always said I'm a better editor than I am a writer, so I will get the biggest inspiration after you've written something and I will go through it”. In this example, Stacy finds her moments of self-discovery when she is able to review the work of others, where she is able to analyze their work and discover new knowledge that she can use. She recalls that she had “a few” self-discovery moments when going through an exercise in her QM training, where faculty were
asked to find examples of best practices in a sample course, which she took as an opportunity to “edit the work”.

Paula describes one of her a-ha moments which stems from QM training as well. She was taken back:

When you first confront this huge long list [of best practices], this checklist of things you need to be able to do in your online class, you're like you got to be kidding, but once you work through it, it starts to make sense and you see how that can help students.

In this example, Paula was able to see and understand the “big picture” of what the training was trying to relay and she discovered that she was already doing a lot of the “basic practices” that initially consumed her attention.

Self-discovery was important to participants, especially to those who were newer to online teaching. Steven, who has only three years of online teaching experience, thought he was doing a good job online until his “epiphany”. “I had a realization that I am too limited and not as great as I thought I was”, which came to him after recognizing how much more he could be doing in his online courses. It was a culmination of training, speaking to other adjuncts and to his dean, when this information seemed to come together. He now is “really making an effort to get to know my students much more than in the past” citing his sense of being impersonal online, but being very personable in the classroom as a point of realization. He did not understand why he started off this way, but realized that he needed to “show them [his online students] who I am”.

After teaching the same online course for a few years, Linda began to ask for assignments to be submitted in a more professional format. She recalls just introducing a paper and making reference that she wanted the work to be turned in to her in APA or MLA format. Her online students began to ask a lot of questions and she quickly realized that students may not understand
what style of formatting APA or MLA is, “so I realized that I have to learn this so that they can understand it as well and not just assume they take it on themselves”. She just assumed that students knew how to format their papers just because she taught a 200 level course at a community college. Linda quickly read up on these formatting types and provided links and examples of each formatting style to her students, which she added rather quickly to her online class. Once she discovered that she cannot simply “ask students to do something new or different … without explanation”, she realized that she would need to support this transition of expectation with example and some personal insight.

Experienced online faculty also felt the importance of self-discovery. Dana, who brings a veteran perspective to this study, points out that after teaching classroom, online and televised correspondence courses for a number of years:

They [courses] either get stale or you get tired of doing the same thing the same way, so you kind of need to shake it up, to keep it fresh for you. Otherwise you get burned out I guess, doing the same thing over and over again all the time, so maybe that was the a-ha moment, when I realized I had to do something different, I need to shake it up a bit.

Dana came to this realization on her own, citing her need to develop new and different strategies for assessing her writing classes. Reading and grading papers, although critical to her and to her course objectives, became “boring” to her, so she began to introduce small quizzes that her online students could take as a ‘break’ away from constantly writing. She found this to be illuminating as she discovered a different assessment technique to mix in to her written assignments. When asked if she would share this tactic with other online faculty who teach writing online she said “of course, if they also see the value in them [her different assessment techniques], sure”.

Self-discovery also helped participants understand how important they are to the students they educate. Linda had an a-ha moment when she discovered what an important role she played as an online instructor. After notifying people about her new position, Linda actually had a former online student and mentee text her saying that she “went home and cried” when the student found out Linda was leaving for a full time teaching position at another institution. The student describes to Linda “You are the only person who has really been there for me and encouraged me”, which made Linda realize the importance of “pouring” herself into her course and into her students. She describes this as “cheesy” but discovered that giving all of herself to her student is “a vital part of teaching”, especially online. She recalls that she knew that her role as a community college instructor was important, but realized just how important her role was after the student confirmed how she felt about Linda’s actions towards her.

**Surprise**

The second theme of sudden moments of insight in the adjunct’s development process is Surprise. This is defined as a feeling or reaction to learning something unexpectedly, often involving mimicry of sensation. They describe these moments as auditory through “clicks”, “pops” or “dings”, as imagery through “light bulbs”, “flashes” or “big picture” and as feelings that “hit me”. Laura recently started her online doctoral studies and was surprised to see how the online courses were run. She was surprised to see how well audio and video lectures worked, how well live synchronous chat worked and how smoothly her online group work went. “I didn’t expect to be so interested in adding so much more to my online courses”. Laura states “I always thought my courses were well-rounded and now I feel that I need to add some components [synchronous lectures] to make it a more, well-rounded course”.
Participants describe how online courses bring with them a higher level of anonymity as compared to classroom courses. Linda became surprised at how “very cheeky” and “very in your face” students can be like online, especially with a recent student who had an issue with an exam grade. The student contacted Linda’s academic department to complain and Linda was surprised the student did not reach out to her first, as most students did in the past. As a result of this surprise, Linda learned to keep her dean “in the loop even if it's just an FYI, if there is a potential student issue”. She made sure this was an accepted practice with the department and has taken this approach to avoid similar situations in the future, since “she teaches online and is very rarely on campus”. Linda also mentions being surprised about seeing the power of online learning in her online doctoral program because students and instructors were “from all around the world”. She saw how the presentations, video lectures and student activities brought in so many diverse perspectives and wanted to immediately “beef up” some of her online teaching skills to match what she had experienced online.

Surprises were experienced by participants in both online courses and in the classroom. Jackie describes being surprised by her students as “the best a-ha moments I have is when somebody [a student] gets something that I am not expecting”. She provides an example of a course discussion that she felt students may not be able to understand, but she was shocked at how much quality discussion was generated from a topic that she initially thought was “too much” for her students. Jackie has not taught in the classroom for a few years, but says this experience was similar to what she experienced in the physical classroom, where she could see that the students “got it” and was surprised that a similar sentiment “came through online”. Steven was surprised when one of his online groups of students lost three out of five members, due to student withdraws or from students “who just stop doing the work”. By the time his final
group project was due, one of his groups was down to two members. Steven was surprised about how this happened and did not know how to react. He weighed the options of having the two members join other groups or to refine the final group project to reflect the work of only two members. He chose the latter, but was surprised how this impacted him and the remaining two students who were worried about the potential results of having just two members.

After teaching online, some participants were surprised at what they were able to use in their classroom based courses. Steven, who started teaching in the classroom before accepting an online teaching assignment, was surprised about how many ideas and concepts he was able to incorporate into his classroom courses as a result of teaching online. “What I never expected, was [how being] an online instructor has given me ideas for my face to face classes”. He describes how he has been able to strengthen his assignment requirements in the classroom and started using an LMS to support his classroom activities after having to use it for his online course. Steven explains a smoother classroom experience once he started using the LMS in the classroom and was able to relay the same access to college resources to both his online and classroom students.

Learning expectedly can help build confidence to teach online. Jane admits that it took her several years to build her confidence with online teaching and still is not completely confident in her abilities at times. Jane was surprised when she ended up helping someone with a technology issue. “I showed her [a peer] and she was shocked that I knew how to do this [rename an uploaded file in the LMS]. I can actually show her something on the computer when normally I am asking [for help]”. Jane experienced this moment as a confidence builder and was surprised that she has built her knowledge to the point where she could assist others with their questions, instead of being the one who was always asking others. Jane says “it just clicked” with her,
indicating auditory symbolism. She admits it was a small accomplishment, but was very proud of sharing this example, which brought out a big smile and a deep sigh as she concluded explaining this situation.

**Rethinking**

Participants also describe sudden moments of insight in their development process as Rethinking. This is defined as an infusion of conscious and unconscious sense-making steps that takes place over time. It is a learning process where participants ask questions of their own mind. Most participants describe their rethinking process in similar fashion, where they contemplated ideas usually over a period of time. In other words, answers or solutions did not come to them right away. Participants used a variety of terminology to describe their contemplation process. Jackie discusses how she takes a lot of time to develop her final exam essays questions each semester. She says that “just letting the questions [on an exam] sit in my mind” helps her formulate a better, clearer question that “allows me to present things [exams questions] better and I think it benefits my students that way”. Jackie is very particular with how she phrases her exam questions, so she adds that “with this you are always mulling around, getting new ideas and mulling them around”.

Chris describes rethinking his written communication online when he realized how important and “intentional it is” since it may not carry a “tone” or that tone may be hard to interpret by students. After replaying it in his mind and “thinking about it [revising his written communication online]” Chris went back into his course and forced himself to:

Look at what exactly I am saying everywhere. In other words, what are my assignments saying exactly and what am I trying to get my students to do and think through exactly and … I was just able to go back and re-write everything. It was the same assignment, but
I was just able to be much more intentional about it [describing the assignment], to make sure that the students were more intentional about it [submitting the assignment]. Chris had his online course evaluated by a dean, who explained that he should “add a few more emails” to the class to “get some more interaction going”. After letting “a month or two go by” after his course evaluation, Chris engaged in more interaction and realized how critical each word became.

Many different terms were used by participants to describe rethinking. Jane provides an example of her rethinking process, by describing it as percolation, “I always reflect on what I am doing … it tends to percolate because I reflect a lot”. Jane also uses the term “floating around” to describe how ideas come to her, but points out that “it [solutions] won’t just come to me” right away. She describes “floating around” by pointing her index finger in the air and moving it in a circular motion, as if to demonstrate a spinning motion. Jane was the only participant who acknowledges that these moments come to her usually when “I’m frustrated with some aspect of the system [an LMS]”. Other participants did not associate frustration with their rethinking process. Dana mentions “maybe a concept [learning objective] that worked for two or three semesters and suddenly, the way of delivering that concept isn’t working anymore, so … all of a sudden, it will just click”. In this case, she describes her writing assignments in her online course and has benefited by these moments to “explain it [online assignments] in a different way or break it down differently” for the benefit of her students.

Some participants described rethinking as a very timely process. Steven describes rethinking as “wrestling with a decision”, especially when handling student situations in his online course. Steven also mentions that he “debates with himself” and “stews over ideas” that take him time to resolve. He discusses an example of when a student plagiarized a paper and he
contemplated what to do after he confronted the student “for quite some time”. The student ended up withdrawing from the course and he “felt really bad about it”, especially since he contemplated giving the student a second chance to resubmit the paper. He did not expect the student to withdraw from the class so quickly, so Steven decided to be clearer to students about the seriousness of the college’s plagiarism policy and makes sure students understand the consequences of their actions. Another example Steven provides stems from his communication with students. He stated, “I’ve really taken a good look … [about] how I conduct myself online, particularly in email exchanges with students”. At the start of a new online course, it just hit him to become more personable and to “show more warmth” to his online students. He even started using “emoticons” or various graphical symbols to help portray his emotions to his students in his emails. This action was the result of Steven giving himself “self-assessments several times throughout the semester” as he rethought how to “humanize” his email communication.

Rethinking helped some participants reevaluate how they appeared to their online students. Jane also explains how her online presence was “faceless”. Her moment of insight came when she met a former online student in a classroom course and the student said that she had Jane in an online course before. After a short period of second thought that lasted a week, Jane updated her profile and picture, to show her online students who she is and to provide some information about herself. Mark also changed his approach and made it a point to “put a name with a face” in his online courses. He wanted to see the person behind the learning and he wanted the students to see who he was. This moment came to him when he was asked by an online student to meet on campus in person, due to a personal issue the student was having in his online course. Up until this point, Mark was able to resolve most issues online, but after meeting
with the student in person, he felt the need to reassess his approach, to post his picture and encourage students to post a picture of themselves as well.

After many years of teaching online, Linda realized that her personality may clash with some students. “I'm an extrovert. I tend to be gregarious and I realized that many [of her online students] are not like that and I am learning that some people just don't like the same level of engagement [as she does] or are uncomfortable”. This was pointed out to her by a few online students who were “shy and reserved and were uncomfortable with some of the engagement activities” she had in her online course. The concerns came to her all in the same semester, so she took the time to reassess and change these requirements to make them “work” the next time around and to take into account the different levels that students may or may not want to be engaged in online.

Some participants described how change can evoke rethinking. Dan explains how his institution changed their LMS a few years ago and how “it [the change] put me into a mindset to let me rethink my course”, explaining that the new LMS “had a different approach then the old LMS did”. When probed for an example, Dan explained that the new LMS just had more “friendlier features and capabilities” and he felt it was important to extend this to his students. In Paula’s recollection, she rethought the value of her online class discussions, after students were complaining about other students contributions. After envisioning how to handle the complaints, Paula settled on her decision to eliminate all discussions except for her introductory discussion and added other assignments and quizzes to make up the course grade. She says the experience “make her think twice about the class forums and their value” to learning in her online course.
Meaningful Linkages

The fourth theme of sudden moments of insight in their development process is Meaningful Linkages. This is defined as the realization of how new information is connected to prior knowledge and experience in important and useful ways. Participants describe this as seeing something outside of their online course and find meaning in how it relates to something in their course. In other words, Meaningful Linkages is realization of how two things are usefully connected, whereas prior to the realization, the connection went unknown to the participants. Some participants explain how they developed meaningful linkages as a process that unraveled over time. Jane describes how it took her “about six years” to develop an understanding about her online course discussions. Her online courses initially had “just a few” discussions, but one semester she saw how students were posting messages to an introduction forum and just kept posting all sorts of information in that forum for many weeks. “I did not see the wisdom … I just didn't see how beneficial, how important the forum was to the student, because social media has become such a big part in the lives of students”. Jane said this just “clicked this semester” now she has made a concerted effort to further the connections she had made between online course discussions and social media. She was “picking up” a sense from her student that “because they’re so into social media, this forum resembles social media, what they are familiar with”.

Meaningful linkages have helped participants renew certain aspects of their online courses. Stacy describes one of her biggest a-ha moments when she took one of the QM workshops where “they talked about the LMS and just having the picture online and that was one of my biggest a-ha moments”. She views adding her picture online as “making that connection with my students to physically see me and to visually see me”. Stacy noticed that once she started posting her picture, students followed suit and she felt that she was better able to connect
to her students by “seeing” them online. She relates this to seeing her students in class and how she posts her picture online with some of the social media sites that she participates in. She was showing her picture to strangers, so she thought “why not” to my own students. Jackie is able to make meaningful linkages to her online course when she reads novels and is able to connect what she read back to her course discussions:

I have some of them [a-ha moments] like when I read a lot of novels. I had a moment where I was like it [what she read in a novel] applies to the forum. I can completely incorporate this and maybe people read the book and maybe that will spark some interest.

Moments of sudden insight have been described by participants as ranging from small to profound, however, the impact that these moments have had seem to be powerful to them. Dana explains how she experiences small a-ha moments by practicing and “just trying this on the computer”. She identifies herself as “more of a hands on learner, so just sitting down and trying different things, that's usually when things [a-ha moments] come to me”. She tends to “push buttons then see what happens” and is able to connect functionality in her LMS to simply trying different features. Dana thinks practice and just trying things such as pushing buttons, has help her draw connections between how to complete tasks in her online course against what is and what is not possible. Laura provides a profound example of how she was able to make a connection between the lack of and the need for frequent contact with her online students:

I think an a-ha moment was in the beginning [when she first started teaching online]. I didn't know how much I needed to communicate with the students and especially when you're teaching the intro courses, when they [online students] may be a little more disinterested in trying to communicate with you. I think for a long time I wasn't emailing
each week, possibly. [Now] at the beginning of the week, I like to email and reiterate all
the work. Even though it's posted in another place [within the course], I kind of had an a-
ha moment that the students may need to see it three times in order to understand or
actually just see it.

Laura initially felt that just by mentioning something in the course students would “get it” or
understand it, which was not the case. Her concern grew even more since she teaches an
introduction course, usually to students in their first semester in college and did not have the
ability to gauge their interest in “a course that may not be part of their college major”. Laura
allowed her outside experience to guide her connection between what is enough, not enough and
too much communication in an online course citing examples of communications with family
and friends where she has to “repeat or remind them of stuff [gatherings and outings]”.

Linking their online courses to the workplace and student employment was also
experienced by participants. Linda, who teaches a 200 level course, or a course that students
typically take in their second year of college, also realizes that the majority of her students will
“never go on to major in this [subject]” or are maybe taking the course “because they have to”.
The community college only offers the one course in this discipline, as opposed to local
universities that offer either a major or a minor. She connects her course content to real world
application and has now made the course more about the student and their personal experiences
with the subject matter. Realizing that they may never major in the topic, she revised her
assignments to be more reflective to the student’s individual interests and explains that her
course still “covers the fundamentals” in case they do major in the discipline. Linda provides a
second meaningful linkage example, through an a-ha moment she experienced when her
previous knowledge of online course communication did not mesh well with her actual experiences. Linda explains:

I think that I underestimated the value to the students of feedback and being involved in … in getting praise. I really don’t think I understood how important that was in an online world, when they [students] can’t see my body language and they can’t see my face, like if I’m smiling at them or nodding my head in agreement. That online affirmation was very important and that was another a-ha moment for me.

Linda developed a meaningful linkage between the type of feedback she was getting in her online doctoral program, with the type of feedback she was providing to her students. She describes the feedback she received as “much more robust” and “meaningful”, so she realized how she felt receiving the feedback and in turn wanted her students to experience the same level of feedback.

Similar to Linda’s experiences, Chris understood how important online discussions were to an online course, but realized through an a-ha moment that his choice of discussion questions were “not very effective”, that the questions he initially chose were not “getting me interaction” and the questions “weren’t getting me results”. He further explains, “Then all of a sudden there is that moment where you come up with a whole new approach to the same question and then you implement that [the new question] and in most cases I saw better results”. He was able to link the lack of student participation and poor results, to the need to develop a whole new approach to his online discussions.

Participants experienced how meaningful linkages can be made even when the subjects they teach are not at the forefront of discussion. Stacy experienced several a-ha moments during her formal training sessions and was able to make connections across disciplines. In a quality
matters sessions, Stacy recalls how there were faculty “talking about math … it doesn’t matter. I’m keeping in mind my subject matter”. Her effort to set aside the discipline that was talked about and apply the principles being discussed helped Stacy develop some new types of assessments for her students.

**A Freed Mind**

The final theme of sudden moments of insight in the development process of these participants is A Freed Mind. This is defined as a state of thinking that allows subconscious processing while the mind is partially distracted by physical activity. It appears that subconscious offers influence over a-ha moments, where a freed mind allows for the conscious to make connections with the subconscious mind, tapping into memories that were not at the forefront of the participant’s thought process. Most participants were able to provide examples of when ideas come to them at unexpected times and some even acknowledged that their minds process information in “funny” and “awkward” ways and times. When asked when moments of sudden insight occur, Paula states “sure I mean that [a-ha moments] could happen with anything you’re doing. Sometimes when your mind isn’t involved in that particular problem and you're doing something else … it frees up part of your mind to find a solution”. Paula was not able to give an actual example, but mentioned that this process happens a lot to her, especially when she is grocery shopping and she has to write down the ideas that surface in her mind. Steven as well was not able to point to a particular instance, but knows that he has had a-ha moments when he is working on his classroom course and all of a sudden, he develops a new approach for his online course and vice versa.

Participants mentioned how past experiences can trigger moments of insight. Linda experienced an a-ha moment after discussing how she started to use online streaming videos for
her online course to help deliver her course content. She forgets exactly how she came to the decision to search through and use the video library, but explains:

I don't want to say I stumbled upon it, but I don't remember having a conscious thought about using [the] documentaries. They just seem to be a logical addition or a logical piece to integrate into teaching and learning and to me they are especially helpful and necessary when we are looking at the online environment.

She was not able to recall how she found out about the videos, but knows that she was either emailed or told about the video library “a while ago” and when the idea to use the video popped into her head, she decided to review what titles she could use for her online course. The idea came to Linda while she was driving, explaining her “long, one hour commutes” to campus. Dana and Jane also mention their long drives to and from campus as when a lot of things pop into their heads. Stacy, who claims her car to be her “adjunct office” also has long drives, but says it is listening to music while driving that has given her moments of insight, because lyrics resonate with her “to have larger meanings” and that sometimes a certain song will “trigger” a thought in her head. Stacy also describes music as “universal” and “inspirational”. Stacy has been able to reconfigure her assignments from certain songs that she has heard on the radio, that just seem to inspire these moments and ideas to surface in her mind.

An important component of a freed mind is physical activity and how it helped participants become partially distracted from completely concentrating on an issue. Laura mentions a “drifting off” experience, by explaining how she experiences moments of insight “just as I am falling asleep”. During the first interview, she pulls out her cell phone and states that she always sleeps “with this” by her side and she has jotted down reminders into her phone of ideas that have come to her so she wouldn’t forget them the next day. Jackie explicitly
mentions that her a-ha moments come to her when she is “not thinking about the problem”. She recalls how that while her mind was engaged in “reading books”, “knitting”, “playing with my kids” or “watching movies”, she was able to resolve “something [an assignment] going on in class”. Jackie captures her moments by “writing them down on sticky notes”. Chris also mentions “I never thought about it but this would work really well, or at least it's worth a try. So often I would be doing something else, or focus on something else and I would get an a-ha moment or an inspiration that would click with me”. His moments come to him while he is driving his car or while on his tractor mowing the lawn. He follows up by stating how important it is to “write it down so I don't forget it” and does have a notepad in his car, or he will “send myself a text message as a reminder”.

A freed mind has developed when participants tried to solve a problem, but ended up moving on to something else, only to come back and resolve the issue. Mark does not experience “a lot of those [a-ha moments]” but recalls how they come to him when he is “just working on stuff [on the computer]”. When he is trying to solve something and feels he has hit a mental “roadblock”, he makes a “conscious effort to walk away for it [the roadblock] for a few minutes” to clear his head, only to come back to it a while later.

Although this experience is unrelated to online teaching, Dana provides an example of finding her keys several weeks after losing them. The concept that Dana’s example represents is that her mind was free from thinking about her keys, as she her mind was distracted by her actions in the kitchen. She recalls how she retraced her steps when she was in the kitchen “doing something else” and it just “hit her” to check under a pile of plastic bags just a few feet away from where she was. Dana also adds that sometimes frustration with her online course or “running into an issue” has caused her to have a-ha moments:
I think it’s more subconscious and tucked away, because a lot of times like if I am struggling with something or if something is lost right before I go to sleep, right as I’m drifting off to sleep, that is when the answer or location [of her keys] or whatever will come to me. When you kind of stop thinking about it [the issue] and just I guess let the subconscious take over.

Section Summary

This section described five primary themes illuminate the experiences of sudden moments of insight on online adjunct faculty development: a/ Self-Discovery, b/ Surprise, c/ Rethinking, d/ Meaningful Linkages and e/ A Freed Mind. Although these themes are unique, they exhibit a connection between the learner and their own individual thought processes. For example, after a faculty member experiences a sudden moment of insight, they typically act on the moment by enabling action. Participants showed how they discovered new meanings, how the rethought parts of their online course, how they unexpectedly learned by surprise and how they created linkages to provoke a stronger understanding. Participants described that when their mind was freed, this is when they experienced the surfacing of moments of insight. In other words, each participant shared their reaction to these moments of insight that seemed to surface at peculiar times and in mysterious ways. The relationship of these themes shows how important moments of sudden insight are to the development of human beings in general and to the participants of this study. They shared their experiences and recollections with sudden moments of insight which continue to be an elusive field of study.

Chapter Summary

Chapter four offered findings for the three research questions used to guide this basic qualitative study. One theme that is evident throughout the findings is Learning to Teach Online
through Informal Learning. Data presented in this chapter shows the effect of formal training on informal learning, showing how formal learning is an initiator of informal learning. Data illustrates the nature of informal learning, characterized by Developing Confidence to Practice, Connecting Instructors to Resources and Offering Multiple Perspectives. Data also shows the impact that moments of sudden insight have on online adjunct faculty and their development process. Sudden moments of insight are responsible for Self-Discovery, Surprise, Rethinking, Meaningful Linkages and A Freed Mind. Conclusions drawn from data, a discussion of the findings, implications for practice, and recommendations for future research are included in the following Chapter Five.
CHAPTER FIVE: CONCLUSIONS AND IMPLICATIONS

The purpose of this study was to understand how adjunct faculty developed professionally and learned to teach online through informal learning. Based on the intellectual goals, conceptual framework, and qualitative methodology of this study, three research questions were formulated as a foundation for this investigation:

1. How did adjunct faculty learn to teach online through informal learning?
2. How did formal training encourage adjunct faculty to learn through informal means?
3. How, if applicable, did adjunct faculty experience moments of sudden insight when learning to teach online?

This basic qualitative study explored the interpretations, perspectives and experiences of online adjunct community college faculty. General inductive analysis was used to develop rich, thick and insightful findings. Data was collected through two sets of interviews, an initial interview and a second interview with each of the eleven participants. By studying these online adjunct faculty, I was able to understand more about how these faculty learned to teach online through informal means in the context of their lived experiences.

The purpose of chapter five is to discuss conclusions, implications for practice, and recommendations for future research. Now that this study has finished, conclusions have been drawn, implications for practice have been discovered and recommendations for future research have surfaced. This chapter is presented in three parts: a/ Conclusions and Discussion, b/ Implications for Practice, and c/ Recommendations for Future Research.

Conclusions and Discussion

This section offers conclusions and discussion for this basic qualitative study. Three prominent conclusions were drawn from an analysis of the data: a/ Informal learning is a
continual process that is essential to the development of adjunct online faculty; b/ Formal learning recognizes and anticipates implicit learning needs which encourages adjunct online faculty to learn informally; c/ Sudden moments of insight are a mixture of conscious and subconscious thinking, that are an integral part of informal learning.

**Conclusion One: Informal Learning is a Continual Process Essential to the Development of Adjunct Online Faculty**

The first conclusion of this study is that informal learning played an essential role in the development of online adjunct faculty. Participants describe informal learning as a very important way they learned to teach online. Informal learning, as described by the participants, occurred over a period of time, where participants were mostly learning on their own. In other words, participants engaged in informal learning when they needed to learn something new or different and were able to participate in informal learning at any time they choose to. Existing research supports this finding, that informal learning is unhurried in nature, it is opened-ended and has relatively few time constraints (Boekaerts & Minnaert, 1999). Informal learning allows each learner to self-regulate their learning, where individual learning paths are created and individual learning goals continue to evolve. Participants resonate this sentiment as they learned at their own pace and developed their knowledge over time. This confirms what Bennett (2014) predicted that time needs to be built into VHRD to allow for reflective learning. During reflective learning, other forms of informal learning such as self-directed take root, to make learning multi-modal and experiential (Bennett, 2014). Participants showed that they were reflecting while they were engaged in an experience, as well as after an experience, two processes that Schön (1983) refers to as reflection-in-action and reflection-on-action. Informal learning is therefore not a step, but more of a process that consumes time and energy, as it
encourages participants to look at and look back on what they are learning as the build expertise. Furthermore, participants confirmed that they are learning all the time (Knowles, Holton, & Swanson, 2005), that they learn through conversations (Baker, Jensen, & Kolb, 2005) and that informal learning is both an individual and a collective learning process (Bennett, 2014; Schein, 1999).

An important component of the participants’ informal learning process was seeking others experiences, where participants would converse and interact with others who had experience in the field of online education. Each participant named a person, and most cases persons, who were “helpful”, “influential”, “awesome” or “great” in providing advice or knowledge to them, as participants were learning to teach online. The majority of these interactions were initiated by the participants themselves, showing that learning from others is an important informal learning process that resonates even in today’s technology driven learning environments. Research shows that opportunities to learn from seasoned faculty or from those with experience is beneficial for individuals, as well as the institutions or organizations they work for. Cappelli (2008) support this and confirms that VRHD can be used for talent management purposes. In particular, VHRD is a vehicle for cultivate existing employees, instead of hiring new ones and it is capable of enabling succession planning for various positions within an organization. Participants have shown how important their human connection has been to people at the community colleges such as instructional designers, technology people and online learning employees. Since adjunct positions tend to be temporary and not “guaranteed” from semester to semester, there will be a void of knowledge and experience that will most likely need to be retooled or rebooted.

Participants have shown that they learn by watching actions and by engaging in
interactions to confirm what is acceptable to their organizations (Bennett & McWhorter, 2014). Some participants mention that they benefited from seeing online courses from other faculty. In other words they observed what other faculty did in their online courses and were able to learn from these examples, to better understand what acceptable practices look like. Virtual mentoring, or pairing experienced online faculty with novice ones is a method that fosters the deliberate, thoughtful and reflective exchange of “in house” informal information (Bierema & Hill, 2005; McWhorter, 2010). Participants showed their reliance on “in house” information and knowledge throughout the study in describing the resources they sought and relied on to learn. Most participants identified multiple people within their institutions who were helpful, showing that informal mentoring is already taking place, a process that can be enhanced by VHRD.

A final component of informal learning is exploring in practice, which was experienced by all participants in some fashion. The majority of participants mentioned learning by trial and error, a process of practice that takes place gradually over time, in which participants were able to resolve any issue to “get things right”. It is important to understand that practice takes place in time, evidenced by some participants stating that it took “a few tries” or “I finally got it” when describing their learning process. VHRD can help reinforce informal learning and act as a support system where faculty “go” to get help, to find answers or to contribute knowledge that may help other faculty in their development process. Informal learning through VHRD, focuses on the virtual environment that fosters learning, including experiential and job-based learning (Bennett, 2014). These two forms of learning have been well represented by the participants in this study. They mention learning on the job by adapting, experimenting and gaining perspective that help develop their own learning capabilities. VHRD is practically limitless and boundary-less, given there is enough technology to support it and it involves time simultaneity of past,
Connections made by faculty include learning from the past experiences of others, to improve current practices and reshape how things could done in the future. The importance of sharing information and knowledge through informal learning and VHRD has already been established in medical education (Bennett, Blanchard, & Fernandez, 2012). Since VHRD capitalizes on new information and communication technologies to provide learners with anytime access to instructional content, VHRD can help build adjunct faculty development paths that will create greater synergy between institutional and individual learning needs (Bennett & Higgen, 2016).

**Conclusion Two: Formal Learning Recognizes and Anticipates the Informal Learning Needs of Adjunct Faculty**

The second conclusion of this study is that formal learning recognizes and anticipates learning needs which encourages further learning to take place informally. Formal learning cannot cover everything, since it is limited in time and scope. Formal learning seeds informal learning as evidenced by the participants who expressed an interest in learning on their own after formal training ended. During and after their formal training encounters, participants gained confidence in their own abilities to forge ahead and develop their skills on their own time, within their own context. In most instances, participants wanted to learn more, so they attended formal training and followed up themselves by developing their own learning pathways. While formal learning is typically an institutionally sponsored event, informal learning, in the case of the studies participant’s, is not. Participants were encouraged by formal training to develop their online teaching knowledge, but the willingness was the responsibility of the participants and not their institutions. The study concluded that informal learning was rarely institutionally supported, even though it was rooted and perhaps shaped by formal training. Participants were building this
confidence through practice, while improving their learning capacity and performance (Bennett, 2014). According to Nonaka (1991), knowledge creation should be at the forefront of any organization, to allow employees to develop learn, share and contribute. VHRD allows for the sharing of resources, ideas and content, that connect learners of all abilities and levels of interest. VHRD represents complex interactions between learners and trainers, which participants engaged in during formal training, but these interactions were stifled once formal training concluded, since VHRD was not truly present (Chung, Angnakoon, Li, Allen, & Chung, 2016). The study shows how participant abilities varied, how skills were developed in several different ways and how participants became connected through their formal learning experiences.

Participants mentioned how important it is to connect to resources, both electronic and human, which they did as a result of their formal training. Formal learning congregates information and knowledge that participants have taken away in the form of web links to additional resources, contact information and frequently asked questions. This is training material that participants see afterwards, which is dynamic and growing, as evidenced by the informal learning that participants engaged in after formal training. VHRD leads faculty to find useful and applicable information that can lead to learn new ideas from others and improve learning performance (Bennett, 2014b; McWhorter, 2011). In other words, informal learning through VHRD will not impose a prescribed learning pattern sometimes associated with formal training and will congregate this takeaway information. Through her study of intranets, Bennett (2014) concluded that VHRD allows employees to experience the wider organization, giving them an opportunity to see what is important to the culture of the organization. VHRD can connect people together and forge relationships that can encourage collaboration and information sharing institutionally and not just locally, as mentioned by the participants. These connections
have developed organically, without the pressures of conformity or member placement. Some participants mentioned how they learned from other faculty who taught in different disciplines, which is a prime example of Bennett’s (2014) “wider organization” finding, where faculty can learn from peers outside of their immediate academic departments. VHRD has the ability to expand the learning horizons of faculty and not limit them to “in-learning” or leaning from the same group of peers that they have always associated themselves with. The same study showed that VHRD via an intranet can be used to reinforce expectations that allows employees to become ingrained in procedures and carry out expectations that are considered righteous by the organization. Bennett & McWhorter (2014) described these relationships as healthy, social bonds that can extend outside of an organization, to include members of other institutions or groups, even if they are remotely distributed. Given the importance of communication technologies in relation to VHRD, Bennett & Higgens (2016) stress the significance of any time access, which is especially crucial when college personnel are not available for immediate support. Since online education is a twenty-four hour, seven day a week learning environment, colleges must have information and knowledge available to faculty at all times.

Many participants within this study referenced the need to “learn new things” or “do things differently” or “more efficiently”. Often times when change or newness is introduced into the workplace, the organization should be prepared to provide its learners with a new skill set, to be able to carry out the requirements of the change (Bennett, 2009; McWhorter, 2010). In addition to providing its employees with development opportunities, the organization itself must be aware that cost and privacy may become concerns. Informal learning through VHRD can limit costs and protect the privacy of learners, as participants acknowledged that they learn differently, or that some have more confidence than others, or that their backgrounds may have
helped or hurt their preparation for online teaching.

Participants mentioned learning best practices and gaining experience and perspective as important learning processes. Learning in virtual environments allows for individuals to gain experiences they may find impossible in the physical world, and it allows for one to represent themselves in multiple ways (Bennett & Bell, 2010). Furthermore, VHRD allows new knowledge to be created and extends human capability (Bennett & Bell, 2010). Participants all seemed to want to extend their capabilities by engaging in learning opportunities after formal. Learning in virtual worlds can also mirror a workplace community of practice that “fosters organizational learning through sharing best practices” (Bennett, 2009, p. 366). VHRD can extend formal training and encapsulate the knowledge and experiences that were learned and shared and enable access to this information long after formal training has concluded.

**Conclusion Three: Sudden Moments of Insight are a Mixture of Conscious and Subconscious Thinking Integral to Informal Learning of Adjuncts**

The third conclusion of this study is that sudden moments of insight occur in the conscious and subconscious mind and do impact the development process of online adjunct faculty. Participants mentioned sudden moments of insight as “profound” or “interesting” or “unusual”. Existing studies show that moments of insight deepen understanding, since they are points of realization or discovery that go beyond what is obvious (Kiefer & Malcolm, 2013). Moments of insight strike to transform thinking where suddenly, learners see something as natural and right, whereas prior, it may have looked foreign or wrong, or just quite not right (Kiefer & Malcolm, 2013). Participants mentioned how the difference in their thought process can be slight or profound, but it changed their perception about how carry out certain tasks and strategies. Existing research has shown that a-ha moments shed new light on existing
information, making these moments defining, even revolutionary (Kiefer & Constable, 2013; Peper & Gibney, 2003). Participants mentioned how a-ha moments allowed them to understand an aspect of online teaching from a different angle, or improve a strategy from a different perspective.

Studies have supported the notion that these moments bring out clarity and understanding that then becomes obvious or apparent (Bowden, Jung-Beeman, Fleck & Kounios, 2005; LeGendre, 2010). Participants recalled how their ability to see something differently “all of a sudden” or “suddenly” was brought on by these moments of insight that led them to discover new information or rethink aspects of their online courses. Several participants explained how they let their minds go while engaging in other activities, usually physical in nature, such as driving, reading, watching, playing and knitting. Existing literature supports these actions of reflection or letting the mind go to help stimulate past experiences (Chambers, 2007; Peper & Gibney, 2003). Participants mentioned that ideas “pop into their head” at “some of the worst times” or “at any time”. In most of these experiences, participants were usually thinking about other things or doing something else, which shows how the conscious and subconscious mind help distract and help surface these moments. In some cases, participants were casually thinking about the issue at hand, while their mind was “percolating” or “wrestling with” or “mulling over” or “contemplating” a next step or resolution. In other words, their mind was partially distracted, allowing for subconscious processing to work while their conscious thought was elsewhere.

Moments of sudden insight, as experienced by the participants of this study, support Bennett’s (2012) Four Mode Model of Informal Learning. Specifically, participants seemed to have experienced integrative learning, the fourth mode of this model, defined as learning that combines intentional nonconscious processing of tacit knowledge with conscious access to
learning products and mental images (Bennett, 2012). In other words, participants found solutions to problems that they were able to act upon and bring resolution to. This study brings with it additional support for integrative learning, by further understanding how and when these moments of sudden insight occur as experienced by the participants. Both knowledge shift and sublimation were experienced by participants as identified by Bennett (2012). Knowledge shift took place as participants reflected, while sublimation occurred irrationally, when moments of insight surfaced in the strangest of ways.

Equally important is the overall contributions of this study to the Four Mode Model of Informal Learning (Bennett, 2012), which also includes the modes of informal learning self-directed, incidental and tacit, originally presented by Schugurensky (2000). Participants mentioned on numerous occasions their desire to engage in self-directed learning, which was purposely and intentional carried out. Learning by surprise supports the notion of incidental learning, where faculty did not purposely seek out knowledge, but used “I realized” several times to acknowledge that incidental learning took place. Tacit learning or socialization took place frequently among the participants, as they submerged themselves in social settings that helped them develop by experience and practice.

**Section Summary**

Three principal conclusions were drawn from an analysis of the data. First, informal learning is a continual process that is essential to the development of adjunct online faculty. Second, formal learning recognizes and anticipates implicit learning needs which encourages adjunct online faculty to learn informally. Third, sudden moments of insight are a mixture of conscious and subconscious thinking, that are an integral part of informal learning. These conclusions demonstrate that recovering participants’ personal experiences with informal
learning is critical to understanding how informal learning affects adjunct faculty in practice. This chapter concludes with implications for practice, implications for the field, and recommendations for future research.

**Implications for Practice**

The process of moving from practitioner to scholar-practitioner has been both extremely challenging, yet very rewarding. By engaging in this study, my thinking as a scholar-practitioner has deepened to be more inclusive and my search for resolutions and answers has become much more exhaustive. My interaction with the participants of the study made me realize that everyone approaches similar things differently. This is why I now understand why there are so many different viewpoints within an institution, within a department, and within the world. I found that the responses given by the participants of this study were as unique as they were. My engagement in the data analysis process of this study was difficult and a struggle, but with time, perseverance and dedication, I became a stronger interpreter of information. I truly felt that I was able to relive and retrace the information and experiences described by the participants. Data analysis is a process of refinement that takes time. The process has forced me to do more comparing, contrasting, and contemplating, which is critical to any decision making strategy. This deeper type of transformational thinking has and will continue to be carried over into my daily work life, in order to help me make more accurate decisions with clarity and fairness.

I have learned some valuable lessons about the research process and how research can enhance practice. The research process is one that should not be rushed, because one can often overlook data that can help lead to stronger findings. The initial sample size of this study was originally set for nine participants. Due to my oversight in range of sampling and my inexperiance with conducting interviews to obtain rich detail through probes and follow-ups, my
advisor asked me to add two more participants to the study, as well as revise my second interview questions and extend the time for these follow up interviews. These additional measures helped produce richer findings, and encouraged me to evaluate the quality of my findings so that I have greater confidence in the results of the study. Research can enhance practice in many ways, especially when the results of research can confirm prior findings. By confirming prior findings from other studies, researchers can continue to build on these findings to solidify existing practices. Researchers can lead others by explaining the limitations of their own research, to offer some direction to future researchers. Studies that do not confirm prior findings have an opportunity to question existing practices and strive to develop new strategies that enhance practice.

The primary goals of this research were to: a/ significantly improve the understanding of how informal learning influences online adjunct development processes, b/ contribute to the body of qualitative research that explores the informal learning experiences of community college online adjunct faculty, c/ explore participants’ interactions with informal learning in everyday contexts, and d/ recapture participants’ personal experiences with informal learning. I have spent a significant amount of time answering the question of “So what?”. I have been drawing conclusions as a result of my research and offering implications for practice in higher education. As a new member of the research community, the question now is what do I personally plan to do with the results of my research?

First, at the institution I work for, I am helping to manage the transition to a new learning management system, I have already implemented plans to build in informal learning opportunities for all faculty, with a focus on ensuring online adjuncts have ready access to resources to help them develop over time now that I am aware that formal training can only fill
part of their development needs. Over the next six months as faculty begin their training, learning opportunities will take into account pre and post activities where faculty will be responsible for completing initiatives before and after formal training. Practice time times and days will also be setup in one of the faculty training rooms, to allow faculty to learn without a prescribed learning path. In other words learning paths will be established by the learners themselves, where trainers will take the faculty’s lead on what tasks are shown and what strategies are applied.

With respect to VHRD, which connects resources, my goal is to have groups of faculty who participate in formal training together to be able to remain in touch with both the group they trained with and with the greater group of faculty in general who have undergone the process of switching LMSs. This initiative will also lay the foundation for a supportive and interactive VHRD environment which will encourage knowledge building, information sharing and the like, to reduce the learning curve of new online faculty and to help build up confidence quickly. An instructor zone has been setup in the new LMS, which will act as an internal knowledge building environment. My online learning division will distribute information through this instructor zone, which will be just in time, or strategically disseminated as faculty progress through certain milestones in training, through certain times in a semester, etc. Similar to a help desk ticketing system, faculty will be able to contribute their knowledge, offer advice and ask questions.

Second, I have a plan to disseminate my research in order to maximize its potential benefit to the higher education community and to me as a practitioner. First, I plan to share my research internally and talk about my process and findings with both faculty and administrators, in hopes of starting a committee that focuses on online adjunct faculty development. This discussion will likely focus on how my findings might affect how adjunct faculty are developed
and trained to teach online courses and how to best facilitate this training. The goal here is to strengthen informal learning opportunities among the online faculty who teach at the college and work with professional development committees to see this to fruition.

Third, I plan to move my conversations externally, by sharing my findings with two different online learning consortiums within the states of Pennsylvania and New Jersey. The affinity group within Pennsylvania meets twice a year to discuss online education within the state’s community colleges. My goal is to present at one of the next two meetings and have my presentation recorded so those beyond the attending audience will be able to learn and understand how online adjunct faculty can benefit from informal learning. I will contact the person in charge of the online education consortium in New Jersey and ask to present at one of their upcoming symposiums to help convey my findings to those institutions as well. I also plan to reach out to neighboring states and attend their community college online education meetings in hopes of expanding my findings to a wider audience.

Fourth, I plan to start a conversation in the field by submitting my study results to journals for dissemination, which will allow me to explain the benefits of informal learning and the advantages of VHRD. In addition, I will also submit proposals to present my research at conferences where I can engage in dialogue with other researchers and fellow scholar-practitioners. I am interested in speaking at both local and national conferences that focus on online teaching, as well as informal learning and VHRD. While my concentration would be in higher education, I would be willing to engage audiences that are looking to understand what exactly VHRD is and how it can benefit the process of learning and the building of knowledge at almost any organization.
Implications for the Field

Findings in this study are relevant to several areas of higher education practice including adjunct faculty development for online teaching, staff training and overall faculty training and development. Implications for practice are discussed in terms of their applicability to community colleges in general, since these areas are relevant to most all community colleges.

The first implication of this study is that community colleges examine their online adjunct training and development programs, to assess the levels of informal learning that may or may not be taking place. This study shows that informal learning takes place pretty significantly and often without the support of the institutions. These institutions should support the intrinsic desires of informal learning which the participants of this study experienced. During informal learning, faculty are able to immerse themselves in learning within a very natural and realistic context. However, the context maybe nonexistent if formal learning is the only type of learning supported and sponsored by the institutions. Information sharing opportunities, both in person and online where faculty can learn from each other in a peer network would provide a foundation for an informal learning environment. For example, community colleges may want to survey their adjunct faculty to better understand what type of informal learning is already taking place, to develop a strategy that can help preserve and nurture such learning.

The second implication of this study is for community colleges to assess how much knowledge is gained or lost each time an online adjunct faculty member joins or leaves the organization. Financial costs of retraining employees should also be considered, as well as the quality of instruction and the total impact on students. Community colleges can take a direct role in helping aggregate the body of knowledge that they possess, ensuring that this knowledge is saved, reused and updated, instead of simply allowing knowledge to leave the organization when
adjunct faculty leave or are let go. Since adjunct positions are temporary and adjuncts tend to be transient, training them in online teaching is something that does not take place overnight. It is a process that must be carefully crafted and followed up, which can proactively develop an established group of online adjunct faculty that could be called to teach online courses with adequate levels of preparation and confidence.

The third implication is for community colleges to develop a virtual human resource development model that leverages and promotes both formal and informal training opportunities for adjunct faculty. All participants in this study mentioned that their community colleges use a learning management system, which can potentially launch a VHRD environment without too much additional expertise or cost. This study revealed that not all participants learn at the same pace, nor do they start teaching online with the same base of knowledge, confidence and experience. Part of the process of informal learning is going out on your own to explore, discover, practice and develop, as mentioned by the participants. VHRD would support all of these activities since it connects resources and allows learning to take place on many different levels. VHRD is multidimensional and allows learners to participate as much or as little as they need to, allowing them to find answers, seek solutions and even contribute their own knowledge for the greater good of their peers and institution.

The fourth and final implication of this study is that community colleges as a whole, take a more active role in developing and promoting more informal learning opportunities for their faculty and staff. As described by the participants, not all of them were technologically savvy, or even ready to teach online for the first time, which may mean that other faculty and staff at community colleges may need these very same informal learning opportunities to increase their knowledge and competencies. From a faculty perspective, relatively new faculty may need to
learn classroom management strategies if they have never taught in a college setting before. Newly hired staff may need to better understand the history of a process or a previous decision so they can move ahead with their own initiatives. Informal learning can be applied in this fashion to keep all human resources at any given community college well connected with each other, so they can serve the constituents that rely on them for a quality education more efficiently.

**Recommendations for Future Research**

This study’s findings allowed me to understand how adjunct faculty learned to teach online and how informal learning and moments of sight contributed to their development. There are, however, several recommendations for future research that could further combine the importance of formal and informal learning and extend how moments of insight are experienced among adjunct faculty.

1. One of the most surprising results of this study was that not one of the participants referred to themselves as an expert. A study designed to explore the learning patterns of online adjunct faculty over time would be a valuable addition to the shortage of literature about online adjunct faculty. Expertise is something that is built up over time and perhaps a study to determine how long it takes online adjunct faculty to develop a certain level of expertise, would enlighten deans and those who hire online adjunct faculty to understand how important training, practice and development is. Institutions could benefit by solidifying their adjunct faculty retention practices and further develop these quality educators who teach with relatively uncertain environments.

2. The study was relatively small and included adjunct faculty who teach online within the states of Pennsylvania and New Jersey. Therefore, it is difficult to know if these findings
extend beyond this context. Conducting a similar study that includes adjunct faculty from community colleges in other parts of the country would produce more information about how this study’s findings are representative or if experiences vary in different settings. Online education at community colleges started at different times, so understanding how early entrants to online education may or may not have had an upper hand on online adjunct faculty development over later entrants would be valuable to research.

3. This study used a small sample of eleven adjunct faculty who taught online at community colleges within central and southeastern Pennsylvania, as well as southern and central New Jersey. A larger scale quantitative study to see how participants’ experiences may generalize to a larger population is suggested.

4. This study was conducted over a period of six months and included two interviews per participant, where they were asked to recall their experiences. A more enduring study that collects the personal experiences of online adjunct faculty while they are preparing to teach online, would be valuable to community colleges. Findings would facilitate a better understanding of how these experiences evolved over time and how shifts in learning needs take place. This would help identify various stages in the learning process and isolate areas of difficulty, allowing community colleges to better support their adjunct faculty during these stages of struggle.
Concluding Thoughts

This study attempted to help fill a knowledge gap on how adjunct faculty at community colleges learned to teach online. By understanding the circumstances that adjunct faculty experienced, this study was able to identify a few additions to the fields of informal learning and virtual human resource development. Moreover, this knowledge led to recommendations for additions to and/or changes in everyday educational practice that may help community colleges better serve the development needs of their adjunct faculty. This is a group of highly educated, highly motivated people who account for the majority of teaching staff at community colleges in the United States. The level of support, training and learning opportunities that these online adjuncts have access to should be reconsidered to be more ongoing and inclusive, since each adjunct brings with them a uniqueness that is difficult to categorize. The learning environment should be plentiful to opportunities that engage adjunct faculty in informal learning, as this group of faculty continues to contribute profoundly, to community colleges and to the field of online education.

As the participants of this study attested to, their roles as online adjunct faculty are just as important as any other role within the community college. These online adjuncts touch lives, they impact their student's futures, and they help develop our nation's next generation to enter the workforce. Advocating with adjunct faculty is something that every institution of higher education should be mindful of. Institutions can begin by simply including adjunct faculty in existing training opportunities that probably already taking place. They can develop informal learning networks and opportunities that can make this group feel that they are truly part of something great. Adjunct faculty bring with them experiences from the workplace, as well as from other institutions. Their diverse perspectives and experiences can help reshape and enhance
existing practice and even revitalize teaching strategies. Adjunct faculty are a wealth of knowledge. It is my hope that this study’s findings convince community colleges and even four year institutions, to reappraise how they train and develop their adjunct online faculty, in order to leverage the benefits of virtual human resource development and to recognize the value of informal learning.
References


Washington DC: AACC.


2007+Transformative+Learning+Conference+Proceedings.pdf#page=88


Chen, S. (2007). Instructional design strategies for intensive online courses: An objectivist-
constructivist blended approach. Journal of Interactive Online Learning, 6(1), 72-86.
Retrieved from http://www.unhas.ac.id/hasbi/LKPP/Hasbi-KBK-SOFTSKILL-
UNISTAFF-SCL/Mental%20Model/konstruktivisme2.pdf

learning technology on college student engagement. Computers & Education, 54(4),
1222-1232. doi:10.1016/j.compedu.2009.11.008

Choi, H., & Park, J. (2006). Difficulties that a novice online instructor faced: A case study. The
Quarterly Review of Distance Education, 7(3), 317-322. Retrieved from
https://books.google.com/books ?hl=en&lr=&id=CQ-Jm7act00C&oi=fnd&pg=
PA317&dq=The+Quarterly+Review+of+Distance+Education,+7(3),+317-
322&ots=ZGkI0CrxYQ&sig=5OuMcz-E3D0YcT2zd8cdixnhTuY

Directions for Higher Education, 143, 29-36. doi:10.1002/he.310

information processing perspective. European Journal of Training and Development,
40(1), 21-35.

Chung, C. H., Li, J., & Jeff, A. (2013). The cultural impact in creating virtual HRD learning
platforms. In Society for Information Technology & Teacher Education International


Hartman, J. L. & B. Truman-Davis (2001). Factors relating to the satisfaction of faculty
teaching online courses at the University of Central Florida. In J. Bourne and J. C. Moore (Eds.), *Online Education: Learning Effectiveness, Faculty Satisfaction, and Cost Effectiveness*. Needham, MA: Sloan-C.


Howell, S., Williams, P., & Lindsay, N. (2003). Thirty-two trends affecting distance education:


and qualitative design in educational research, 116-157.


media-revolution


McFerrin, K. M. (1999). Incidental learning in a higher education asynchronous online

McGiveney, V. (1999) Informal learning in the community: A trigger for change and

McKenzie, B. K., Mims, N., Bennett, E., & Waugh, M. (2000). Needs, concerns and practices of
online instructors. *Online Journal of Distance Learning Administration, 3*(3). Retrieved
from http://www.westga.edu/~distance/ojdla/fall33/mckenzie33.html


McLean, G. N., & McLean, L. (2001). If we can't define HRD in one country, how can we
define it in an international context?. *Human Resource Development International, 4*(3),
313-326. doi: 10.1080/13678860110059339


*Advances in Developing Human Resources, 12*(6), 623–631. doi:
10.1177/1523422310395367


environment.* In T. J. Chermack, J. Storberg-Walker, & C. M. Graham (Eds.), Refereed
proceedings of the 2008 AHRD International Research Conference (pp. 1148-1152).
Bowling Green, OH: Academy of Human Resource Development.

study. *Proceedings of the 12th Annual Midwest Research-to-Practice Conference in
Adult, Continuing, and Community Education, Columbus, Ohio.*


doi: 10.1080/08832320209599681


Quality Matters (2014). About the program. Retrieved from
https://www.qualitymatters.org/higher-education-program


of Distance Learning Administration, 11(1).


Dear Faculty Member,

You are receiving this note because you are an adjunct faculty member that teaches online at a Community College in Pennsylvania or New Jersey. My name is Alexander Plachuta and I am a doctoral student at Northeastern University. I am conducting research for my dissertation and I am recruiting adjunct faculty to participate in a study about your experiences learning to teach online. The purpose of this study is to understand how adjunct faculty developed professionally and learned to teach online through informal learning. To qualify for this study, you must have taught at least three courses online at a community college. This study provides the opportunity for you to discuss your experiences learning to teach online.

Participating in this study will help in understanding the special needs of adjunct faculty. Selected participants will engage in two audio-recorded interviews. The first interview will range between sixty to seventy five minutes. The second interview will also range between sixty to seventy five minutes and will be scheduled about a month after the first interview. Identities will be kept completely confidential and participation in this study is voluntary.

If you decide to participate, you may withdraw at any time until data collection is finished without penalty. Once all interviews are concluded and findings have been prepared, participants will be given the opportunity to review the transcripts and findings for accuracy. Findings, including interview excerpts (without identifying information), will be published in my dissertation and possibly other publications.

If you are comfortable with the nature and purpose of this study and are interested in reflecting on your experiences, I would appreciate your participation. Your participation in this research will hopefully help colleges and universities better serve the unique learning needs of adjunct faculty who teach online. Please contact me at (email address removed to protect confidentiality) or at xxx-xxx-xxxx to schedule an interview.

Thank you for your interest and anticipated participation!

Alexander Plachuta
Appendix B
Informed Consent Form

Northeastern University, College of Professional Studies, School of Education.

Dr. Elisabeth Bennett: Principal Investigator,
Alexander Plachuta: Student Researcher

“Virtual Human Resource Development And Adjunct Community College Faculty: A Qualitative Study of How Faculty Developed And Learned To Teach Online Through Informal Learning”

Informed Consent

This informed consent form will tell you about the study. You may ask me any questions that you have. After reading this consent form, you may tell me if you want to participate or not. If you decide to participate, I will ask you to sign this form and I will give you a copy to keep. You do not have to participate if you do not want to.

You are being asked to participate in this study because you are an adjunct community college instructor who teaches online. There will be approximately nine to eleven adjunct faculty involved in this study.

The purpose of this research is to understand how informal learning may have affected the development of adjunct community college faculty who teach online.

If you decide to participate in this study, you will be asked to take part in two interviews. Both interviews will range between sixty to seventy five minutes. You will be interviewed at a time and location that is convenient for you. Interviews will be audio recorded and transcribed. A transcription of your interview will be made available to you. Once all participant interviews are finished and I have written my findings, I will email you a copy of my findings to review. You will be asked to provide feedback via email or telephone.

There are no foreseeable risks or discomforts associated with this study. I will be certain to keep interviews at or under seventy five minutes, in order to avoid inconvenience to you.

There will be no direct benefit to you for taking part in this study. Participation could provide you with an opportunity to reflect on your experiences. Information learned from this study may help modify existing online adjunct faculty development policies, strategies and procedures.

Your role in this study will be kept confidential. No reports or publications will use information that will identify you in any way. I will review interview transcripts and remove all identifying
information, including the names of people and places. I will mask these identifiers with pseudonyms. All data will be kept in a locked file cabinet. This form will be maintained in a locked drawer for three years after completion of the study. All other data will be destroyed within one year of completion of this study.

**Authorized people may request to see research information about you and other participants in this study.** I will only permit people who are authorized such as the Northeastern University Institutional Review Board to see this information. This is done to make sure the research is done ethically and according to standards.

There will be no compensation for your participation in this research and there are no known costs associated with participation in this study. Your participation in this study is completely voluntary. You do not have to participate if you do not want to. Even if you start the study, you may decide to stop at any time until data collection has finished. If you do not participate or if you decide to stop participating, you will not lose any rights, benefits, or services that you would otherwise have as an adjunct faculty member.

**If you have questions or problems,** please contact me at xxx-xxx-xxxx (home), xxx-xxx-xxxx (cell), or via email at (address removed to protect confidentiality). You may also contact Dr. Elisabeth Bennett, the Principal Investigator at (address removed to protect confidentiality).

**If you have any questions about your rights in this research,** you may contact Nan C. Regina, Director, Human Subject Research Protection, 960 Renaissance Park, Northeastern University, Boston, MA 02115. Tel: xxx-xxx-xxxx, Email: (address removed to protect confidentiality). You may call anonymously if need be.

I understand this consent form and I agree to take part in this research

________________________________________________________________________
Signature of participant agreeing to take part
Date

________________________________________________________________________
Printed name of person above

________________________________________________________________________
Signature of person who explained the study to the participant above and obtained consent
Date

Alexander Plachuta
Appendix C
Initial Interview Guide

Introduction and Warm-up

The purpose of this study is to understand how adjunct faculty developed professionally and learned to teach online through informal learning.

1. Tell me a little about yourself, your work background and professional experience.
2. Tell me about your academic background, the degrees that you earned and why you chose specific majors.
3. What motivated you to become an adjunct faculty member at a community college?
4. What motivated you to teach online?
5. Tell me about your life as an adjunct faculty member.

**Follow-up:** What might you do in your online course? With whom might you interact with at the college during semester?

6. What does it mean for you to be successful as an online adjunct instructor?

**RQ1: How did faculty learn to teach online through informal learning?**

7. What was the process of learning to teach online?
8. Informal learning means any type of learning that takes place outside of a traditional classroom that is not led by a teacher or facilitator. Describe some informal learning activities that you participated in and how did they help you learn to teach online.
9. What were some of your greatest concerns about teaching online when you first started?
10. What were some steps that you took to adjust your teaching style to teaching online after you started your first online class?

**Follow-up:** Were you comfortable with these changes and what inspired you to make these adjustments?

11. What type of new knowledge or skills have you picked up informally as you gained experience teaching online?
RQ2: How did formal learning encourage adjunct faculty to learn through informal means?

12. Tell me about any formal learning opportunities (such as classes or workshops) that you participated in as you developed to teach online.

13. How did you find these formal learning opportunities to be useful or not useful?

14. What informal learning activities did you engage in after you completed your formal training?

Follow-up: Was any of this activity out of your usual realm of searching for knowledge?

15. Beyond an instructor for a formal class, who helped you develop your online teaching skills?

16. After formal training, if applicable, what resources were useful for helping you develop professionally?

RQ3: How did faculty describe learning to teach online through sudden moments of insight, if applicable.

17. What, if any, skills or concepts were difficult to learn?

18. Please describe any “a-ha” moments you had? When did they come to you?

19. How did solutions to problems appear to you in unexpected ways?

20. Have you ever drawn a conclusion or resolved a problem while your mind was engaged in another activity? Please describe.

Follow-up: How were you able to capture and then benefit from this moment of insight?

Closing

21. Is there anything else you would like to share about your preparation or training in becoming an online faculty member?
Appendix D
Second Interview Guide

Opening

1. How have you reflected on your first interview since we spoke last? Please share any stories, confirmations, or examples that you may have.

2. What new learning opportunities have you engaged in since our first interview?

RQ1: How did faculty learn to teach online through informal learning?

3. What additional stories do you have to share to better describe the learning process you undertook to become an online instructor?

4. How have other people influenced your online teaching and how have you learned from them?

5. How have you navigated any limitations that you have experienced teaching online?

6. How did your background prepare you to teach online?

RQ2: How did formal learning encourage adjunct faculty to learn through informal means?

7. How did formal learning, such as a training session, allow you to continue your learning of online teaching beyond the session?

8. Share some examples of how formal learning has influenced your development as an online instructor, such as personal inspiration, confidence building, or establishing connections that you experienced through formal learning?

RQ3: How did faculty describe learning to teach online through sudden moments of insight, if applicable?

9. Since the first interview, have you had any a-ha moments? Walk me through an example in detail.

10. What are some examples of how you have developed a sudden and unexpected new understanding of something as it pertains to online teaching? How did it appear to you as new learning?
11. Follow up: Did it involve ideas? Images? Sounds?

12. Walk me through the process of what happens when information pops or clicks in your head during an a-ha moment. Why was this information important to you? Share some steps about how this happens.

13. Follow-up: Were there steps involved to get at the answer? If so, how did you go through the steps?

**Closing**

14. Is there anything in closing that you would like to add to this study?