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Instructors' Perceptions of Connectivist Characteristics in Adult Undergraduate Courses

John Bannister
Walden University

Walden University

College of Education

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John Bannister

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Review Committee
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Dr. Cheryl Keen, Committee Member, Education Faculty
Dr. Gary Lacy, University Reviewer, Education Faculty

Chief Academic Officer
Eric Riedel, Ph.D.

Walden University
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Abstract

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by

John Bannister

MBA, University of Phoenix, 2008

BA, Strayer University, 2007

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Adult Education Leadership

Walden University

December 2016

Abstract

The enrollment of college students in the United States who are classified as adult learners will continue to grow, bringing new challenges to degree programs. Multiple studies have provided insight into how best to teach these learners. However, to maximize learning, institutions must now consider strategies that merge adult learning principles with the integration of technology and students' personal and professional networks. Connectivism, based largely on the work of Siemens, and andragogy, based on Knowles, provided the conceptual framework that guided this basic qualitative interpretive study that examined how instructors experience and interpret the characteristics of connectivism (autonomy, openness, diversity, and connectedness) and their impact on students' learning. Ten instructors teaching adult learners were recruited using the LinkedIn social media tool. Data were coded using categories based on the four characteristics of connectivism, and a thematic analysis of the data generated four themes: fostering self-direction and student decision to learn (autonomy); teacher disposition, sharing experience, and effective dialogue (openness); depth or variation of experience, outside resources, and learning from others (diversity); and encouraging engagement, collaboration, and learning for engagement (interactivity/connectedness). This work may be useful to faculty and administrators needing to develop strategies to incorporate andragogical strategies with new learning technologies to contribute to positive social change by better meeting the needs of adult learners.

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Dedication

To the countless members of my support system that have pushed and pulled me throughout this journey, I thank you. To my mother, Dolores Autry, you have and always will motivate me to move forward; I miss you.

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I would like to thank my dissertation chair, Dr. Catherine Marienau, for your guidance and patience; thank you so much for helping me see the process. To my committee member, Dr. Cheryl Keen, thank you for helping me find my voice. The two of you have transformed this definition of an average student into a scholar.

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Table of Contents

List of Tables

Chapter 1: Introduction to the Study

In 2000, over 6 million students age 25 or above were enrolled in college courses; by 2013, this number had risen to 8.7 million (National Center for Education Statistics, 2013). The projected number of adult students enrolled in institutions of higher learning is expected to be over 10 million by 2022 (Hussar & Bailey, 2016). Adult students are defined by the National Center for Education Statistics (2013) as students over the age of 24, who in many cases have family or work responsibilities that can compete or interfere with their educational pursuits. The influx of this student demographic brings increased challenges for the classroom, which have been addressed from student, institutional, and theoretical perspectives (Caffarella & Daffron, 2013; Campbell & Burnaby, 2001; Ludden, 1996; Sullivan & Pagano, 2012). In this study, I explored the institutional perspective of these challenges, as perceived by teaching faculty.

In navigating the higher education setting, adult students rely not only on resources within the institution but also draw on external resources, such as guidance from friends, family members, and professional networks (Baptista, 2013; Halx, 2010; Kasworm, 2012). Integrating these resources could help to create optimal learning experiences for adult learners. Advancements in technology may provide the key to integrating varied resources in support of adult learners. Newer technologies have already impacted how learning takes place. Interactive online learning platforms, social media, and mobile technologies, for example, provide access to people and information from virtually anywhere. The need to support adult students has brought further advancements in learning technologies, as these students require more flexibility as they balance

education with other priorities, such as managing career and family obligations (Burge, 2000; Lambrinidis, 2014; Zawacki-Richter Müskens, Krause, Alturki, & Aldraiweesh, 2015). Institutions offering courses for adult students are challenged to develop and employ technology in ways that are conducive to adult student learning.

Connectivism offers adult program facilitators--particularly instructors and course designers--a framework that fuses adult learning principles with technology and the use of personal and professional networks in learning settings. Connectivism is based in the formation of networks supported by technology to foster learning (Abik & Ajhoun, 2012; Bell, 2009; Chatti, Jarke, & Quix, 2010; Tinmaz, 2012). There are four characteristics of connectivism: autonomy, openness, connectedness, and diversity (Downes, 2010). While there is an existing body of research on the impact that technology has on learning in adult classrooms (Chu, Chu, Weng, Chin-Chung Tsai, & Chia-chun Lin, 2012a; Dzubinski, Hentz, Davis, & Nicolaides, 2012; Luna & Cullen, 2011), to date, the characteristics of connectivism have primarily been studied in regard to massive open online courses, known as MOOCs (Clarà & Barberà, 2013; Tschofen & Mackness, 2012). My review of the literature uncovered few studies examining connectivism in courses that are part of degree programs for adult learners, and I found none focused on business degree programs. This study was designed to bridge that gap by examining the role connectivism plays in business courses offered in an adult degree program in face-to-face and online settings.

Background

While adult students are enrolling in higher education programs to meet their learning goals and/or further their careers, institutions are challenged to meet the needs of this changing demographic. Studies have outlined individual and institutional challenges that occur in adult learning settings, including delivering courses in ways conducive to adult schedules and completion timeframes (Bohonos, 2014; Cornelius & Gordon, 2009; O'Neill & Thomson, 2013; Remedios & Richardson, 2013), helping students adjust or readjust to the rigors of academia (Chang, Liang, Shu, & Chiu, 2015; Curtiss et al., 2016; Giancola, Grawitch, & Borchert, 2009; Zaghab, Maldonado, Whitehead, Bartlett, & de Bittner, 2015), and providing support services that cater to adult learners (Burnette, 2010; Lee, Choi, & Kim, 2013; Nichols-Casebolt, 2012). Much of this research points to possible solutions that include the use of technology and collaboration such as using online resources and developing and maintaining networks to serve as resources to support these students (Ley & Gannon-Cook, 2014; O'Donnell, Hmelo-Silver, & Erkens, 2013; Sutton, 2014; Zhang, Fang, Wei, & Wang, 2012).

Frameworks that have served to guide the development of adult course offerings, such as andragogy, have been adapted to account for the increased role that technology now plays in learning (Johnson et al., 2014; Thompson, 2013). In Chapter 2, I examine some of these frameworks that use the adoption of technologies to improve interaction, and reviews currently accept models to determine whether they are still effective.

Problem Statement

Higher education institutions with adult populations must find ways to meet the needs of diverse adult learners. As advancements in technology and social media platforms offer students additional points of connectivity and have shown promise in impacting learning, strategies traditionally used only in online courses may add value in any course delivery modality (Boeren, 2011; Burrell, Finch, Fisher, Rahim, & Dawson, 2011; Moran, Seaman, & Tinti-Kane, 2011; Overmyer, 2012). Instructors and administrators could use strategies focused on maximizing self-direction, technology, and social connections in academic settings (Cornelius & Gordon, 2009; Halx, 2010). However, limited insight has been offered into how these strategies currently are implemented in adult learning settings.

Although many adult-focused programs draw on the assumptions of andragogy (Knowles, 1984) to understand why and how adults learn, these assumptions do not provide sufficient insight into the roles technology and collaboration now play in the adult learning process. Institutions face the challenge of serving adult learners in a changing society that places high value on the ability to interact with peers while using tools designed to accelerate productivity. The identification or development of a framework that blends three elements may well address this problem: andragogy's focus on adults' desire and motivation to learn, the ability to integrate technology, and the use of professional networks. Connectivism could serve this role. Without the development of such a strategy, adult program instructors and administrators may not be able to effectively incorporate technology and collaboration into adult courses.

Connectivism has shown promise in online learning environments (Flynn, 2013; Mackness, Mak, & Williams, 2010; Murphy & Munk, 2013; Rodriguez, 2012), which has brought some focus on the role connectivism can play with adult learners. However, in a review of the associated literature, I identified few studies that looked at connectivism in the context of courses offered in degree-granting programs for adult students. The extension of such research could guide institutions in creating strategies that strengthen adult learning in campus-based, hybrid and fully online courses.

Purpose of the Study

The purpose of this basic interpretive qualitative study was to discover how instructors experience the characteristics of connectivism (autonomy, openness, diversity, and connectedness) in their face-to-face and online business courses offered in undergraduate, adult-focused degree programs. In this study, I also identified instructor perceptions of how these characteristics influence student learning. Their experiences were explored concerning the influence connectivist characteristics have on learning in adult course settings in order to identify ways to effectively integrate connectivism into adult learning courses.

Research Questions

Two research questions guided this study:

RQ1 – In what ways do instructors experience the characteristics of connectivism (autonomy, openness, connectedness, diversity) in classes they have taught in adult-focused undergraduate degree programs?

RQ2 – How do instructors interpret and explain ways the characteristics of connectivism (autonomy, openness, connectedness, diversity) influence the learning that occurs in classes they have taught in undergraduate adult-focused degree programs?

Conceptual Framework

The conceptual framework for this study drew on two areas: andragogy (Knowles, 1984) and the characteristics of connectivism--autonomy, openness, diversity, and connectedness (Mackness et al., 2010; Siemens, 2005). Andragogy offers a set of generally accepted principles that guide the development and management of adult learning programs. Connectivism, through its use in online learning settings, is gaining interest a means to incorporate newer technologies and social/professional networks into learning.

Connectivism

The characteristics of connectivism evolved from the work of Siemens (2005; 2006b) and Downes (2005a; 2008). The characteristics represent an integration of chaos, network, complexity, and self-organization theories to consider how people, organizations, and technology can construct knowledge collaboratively. The roots of these principles can be traced back to the theories of humanistic adult education of Sartre and Buber (Elias & Merriam, 1980), which focused on student-centered approaches and allowed for multiple perspectives to influence learning. Connectivism centers on the notion that learning can be stimulated using technology. In summarizing the literature, Hogg and Lomicky (2012) found that connectivism emphasizes the students' ability to

locate and navigate through information to make meaning. Siemens's (2005) principles of connectivism are listed here:

- Learning and knowledge rests in diversity of opinions.

- Learning is a process of connecting specialized nodes or information sources.

- Learning may reside in nonhuman appliances.

- Capacity to know is more critical than what is currently known.

- Nurturing and maintaining connections is needed to facilitate continual learning.

- Ability to see connections between fields, ideas, and concepts are a core skill.

- Currency (accurate, up to date knowledge) is the intent of all connectivist learning activities.

- Decision-making is itself a learning process. Choosing what to learn and the meaning of incoming information is seen through the lens of a shifting reality. While there is a right answer now, it may be wrong tomorrow due to alterations in the information climate affecting the decision. (Siemens, 2005a, p. 4)

Siemens's principles of connectivism highlight that knowledge is passed on by individuals through their networks, and learning occurs when required information is accessed by a member of the network. A key point of connectivism is that knowledge can be stored in devices such as computers, referred to as nonhuman appliances. These devices allow knowledge to be stored and retrieved when necessary, thereby fostering learning. Connectivism also stresses the need to connect and understand various sources of information in order to properly process the information being received.

Connectivism has been studied almost exclusively in online platforms, primarily in MOOCs (Clarà & Barberà, 2013; Liyanagunawardena, Adams, & Williams, 2013). Tschofen and Mackness (2012), writing on the trends in connectivism research, noted that the focus on many studies has been on evaluating the levels of autonomy (desire for self-directed learning), connectedness (ability to connect with others), diversity (types of resources being used), and openness (ability/willingness to share information). Downes (2010) provided definitions of these criteria in his blog, Half an Hour:

Autonomy – Learners should be guided and able to guide themselves according to their own goals, purposes, objectives or values.

Diversity – A system of educational resources structured so that each person in a society instantiates and represents a unique perspective based on personal experience and insight, constituting a valuable contribution to the whole.

Openness – The ability to freely opt in and out of the system while allowing a free flow of ideas and artifacts within the system.

Interactivity (Connectedness) – The level of individual immersion in a community or society resulting in knowledge development or transfer.

Based on the literature, these four characteristics are used to assess the level of connectivism that occurs in courses (Kop, 2011; Mackness et al., 2010; Tschofen & Mackness, 2012).

Much debate has occurred concerning the classification of connectivism (Dobozy, Campbell, & Cameron, 2013; Duke, Harper, & Johnston, n.d.; Kop & Hill, 2008; Siemens, 2006a). While proponents of connectivism believe that it meets the standards to

be considered a learning theory (Downes, 2009, 2010; Siemens, 2005, 2006a), the prevailing belief is that connectivism serves as a collection of concepts or characteristics (Bell, 2010; Clarà & Barberà, 2013; Kop, 2011; Kop & Hill, 2008; Wang, Chen, & Anderson, 2014). Andragogy, although more widely accepted, faces the same challenges as connectivism in terms of theoretical standing. This debate is likely to continue as much of the discourse on connectivism is being published through means such as blogs and non-peer-reviewed works (Starkey, 2012), thereby not being subjected to the rigor of accepted research forms.

Regardless of its theoretical standing, connectivism is becoming accepted as a resource for developing learning experiences that involve technology (Barnett, McPherson, & Sandieson, 2013; del Moral, Cernea, & Villalustre, 2013; Garcia, Brown, & Elbeltagi, 2013; Rodriguez, 2014; Shemberger & Wright, 2014; Yeager, Hurley-Dasgupta, & Bliss, 2013; Wang et al., 2014). The increasing volume of adult students pursuing postsecondary education in this time of technological advancement calls for a review of their learning experiences.

Andragogy

Andragogy is based on assumptions about adult learners that Knowles brought to the attention of adult education in the 1970s (Henschke, 2011). Over time, these assumptions have been accepted both inside and outside of the adult education field (Merriam, 2003) and have influenced frameworks for designing and developing programs for adult learners. However, similar to connectivism, andragogy is not fully accepted as a learning theory. Andragogy focuses on an adult's desire and motivation to learn, as well

as the need to be able to interject her or his own experiences into the learning process. The principles of andragogy are listed here:

1. The need to know—adult learners need to know why they need to learn something before undertaking to learn it.

2. Learner self-concept—adults need to be responsible for their own decisions and to be treated as capable of self-direction

3. Role of learners' experience—adult learners have a variety of experiences of life that represent the richest resource for learning. These experiences are, however, imbued with bias and presupposition.

4. Readiness to learn—adults are ready to learn those things they need to know in order to cope effectively with life situations.

5. Orientation to learning—adults are motivated to learn to the extent that they perceive that it will help them perform tasks they confront in their life situations. (Knowles, 1990, pp. 64-67)

Knowles's (1980) conception of andragogy addressed the needs of the adult learner; however, it did so in the context of the limited technology available to educators and theorists of the period. Knowles himself noted that adult educators of the 1970s found the techniques they were taught in the 1960s ineffective and in need of updating, which spurred the development of andragogy. With 40 years of education technology innovation, it is necessary to consider Knowles's thought process when exploring the current technological landscape and how it could impact adult students' opportunity to learn.

Therefore, in this study, I viewed the characteristics of connectivism through the lens of andragogy. While other adult learning principles may influence connectivism and are addressed in the literature review, the broad acceptance of andragogy by educators in adult degree programs provides a common framework to view potential concepts to be used in adult learning (Cercone, 2008; Henschke, 2011).

Nature of the Study

A basic qualitative interpretive approach was used to investigate how instructors experience the characteristics of connectivism in business courses offered in undergraduate adult degree programs and how they are perceived to impact learning. Using a semi-structured technique, instructors who teach undergraduate business courses in adult-focused programs were interviewed concerning their experiences with the characteristics of connectivism in their courses and how they affect the learning that occurs in adult undergraduate settings. Using a priori coding system, the data collected from the interviews were coded based on the connectivist characteristics (autonomy, openness, diversity, and connectedness). Themes were generated from the coded data to identify how instructors experience connectivism as offered in their courses. Interpretive phenomenological analysis (IPA) was used to address the question of how the instructors interpret and explain ways the characteristics of connectivism impact student learning in their courses.

Interpretive designs are often used in education studies to gain insight into how a group sees a situation or phenomenon (Merriam & Tisdell, 2016; Thorne, 2016). The selection of this method was influenced by its use in multiple studies that sought to gain

insight on the experience of instructors or students in adult settings that employed technology (Bryant, 2014; Tokarczyk, 2012; Yow, 2010). In addition, this study also adds to the existing pool of literature on connectivism.

Definitions

The following terms are used throughout this study:

Adult degree program: A degree program that targets adult students. Some institutions enroll adult students within their traditional offerings while others offer separate programs for adult students. This study was conducted in undergraduate business courses offered in face-to-face and online modalities within an adult degree program.

Adult student: Students enrolled in undergraduate college courses who are 24 years old or older (Kenner & Weinerman, 2011).

Autonomy: The ability of learners to be guided, and to guide themselves, according to their own goals, purposes, objectives, or values (Downes, 2010).

Connectedness: The level of individual immersion in a community or society resulting in knowledge development or transfer (Downes, 2010).

Diversity: A system of educational resources structured so that each person in a society represents a unique perspective based on personal experience and insight, constituting a valuable contribution to the whole (Downes, 2010).

Nontraditional student: Students over the age of 24 who in many cases have family or work responsibilities that can compete or interfere with educational goals (National Center for Education Statistics, 2013).

Openness: The ability to freely opt in and out of the system while allowing a free flow of ideas and artifacts within the system (Downes, 2010).

Assumptions

Based on my experience teaching and advising adult students, in addition to the literature reviewed, certain assumptions were made. The first assumption was that the characteristics of connectivism (autonomy, openness, connectedness, diversity) are likely to exist in adult-focused courses. Additionally, these characteristics are familiar to adult course instructors, regardless of their familiarity with connectivism as a conceptual framework. The second assumption was adult course instructors are likely to design and deliver their courses using principles and frameworks related to andragogy.

The third assumption made for this study was that the perceptions that instructors provide will be a reliable representation of the characteristics of connectivism and that the duality of the role of instructor requires participants to view the classroom experience from the perspectives of both the student and institutional administrators.

The final assumption was that ground and online modalities do not differ significantly with regard to connectivist characteristics; thus, instructors of courses in adult degree programs will have similar experiences with connectivism regardless of modality of delivery.

Scope and Delimitations

The scope of this study encompassed instructors teaching undergraduate business courses to adult students in campus based and online settings. These instructors were teaching at programs offered in U.S. colleges and had at least 2 years of experience (or

have taught at least five courses) with adult students in campus-based or online settings. Ten instructors teaching at different institutions across the country participated in one-on-one interviews. This study was delimited by the availability of participants to conduct interviews. In addition, the study was also limited by the availability of the technology tools required to conduct interviews over the Internet.

Limitations

Limitations of this study include a small sample size of participants (10), reliance on social media to recruit participants, and limiting the participant pool to only instructors rather than including students' perspectives and their artifacts.

For this study, 10 instructors were interviewed during the data collection phase of the project. While there was a risk that the small sample would not provide sufficient data to categorize these experiences, many qualitative studies have employed a similar sample sizes in addressing their research questions (Bradbury & Mather, 2009; J. Jones, 2007; Biniecki, 2015). Therefore, 10 instructor interviews were found to be sufficient for this study.

Using the LinkedIn social media platform as the primary recruiting tool may be unfamiliar or questionable to conventional researchers, as it may be perceived that the self-selection of participants limits the data collected. However, acceptance of the use of social media in academic research is growing (Beninger et al., 2014; Brydon, 2010; Eke, 2011; Minocha & Petre, 2012) and is already a fixture in business research (Kashi, Zheng, & Molineux, 2016; Rosoiu & Popescu, 2016). As I explored instructors' experiences with the characteristics of connectivism, which actively incorporates the use

of technology to create and develop connections, the use of a social media tool in the data collection process added integrity to the research.

The rationale for focusing on instructors is that they are closest to the academic experiences of adult learners. Instructors provide a unique perspective, as they are often seen by the student as the person who manages the experience. Additionally, administrators rely on the ability of the instructor not just to facilitate learning but to also manage the expectations and challenges that occur in a course in order to meet the standards set by the learning institution. Both students and administrators can offer insight into the existence of the characteristics of connectivism in adult courses; however, the duality of their role requires the instructor to view the classroom experience from multiple perspectives. This makes instructors ideal for providing insight on the existence of the characteristics of connectivism in these settings.

Significance of the Study

The significance of this study can be viewed from multiple perspectives. This study is one of the first to explore the experiences instructors have with connectivism in in adult degree program courses. Much of the focus in connectivism research has centered on MOOCs (Flynn, 2013; Fournier, Kop, & Durand, 2014; Rodriguez, 2014; Yeager et al., 2013). Although this research has been used to make a case for the use of connectivism in adult learning settings, MOOCs are rarely offered for credit in higher education degree programs for adults. Therefore, this research advances the study of connectivism into a new discipline. This study also provides insight into how the characteristics of connectivism currently translate in adult course offerings, providing

instructors and administrators with research that could serve as the framework for strategies used to infuse technology and connections into adult learning environments. Additionally, this research can be used as a catalyst to additional studies in connectivism in adult settings, as it can be replicated. It is my hope to expand on this study in the future as well as to offer my assistance to those looking to assess connectivism in similar settings.

Summary

In this chapter, I introduced the qualitative study examining the existence of the characteristics of connectivism in adult focused business courses offered at degree-granting institutions. The reasoning behind the development of the study was addressed, followed by the background of connectivism as well as insight into andragogy, which was used to frame the study. In addition, insight was offered into the qualitative nature of the study, key terms were defined, assumptions were supplied that were made prior to the research, and the scope and limits of the study were delineated. This chapter closes with insight on the significance of the study.

Chapter 2: Literature Review

The purpose of this study was to discover how instructors experience the characteristics of connectivism in courses offered in undergraduate, adult-focused degree programs. This study also provided insight into how these characteristics influence learning. Regardless of the theoretical standing of connectivism, adult students could be aided by a framework focused on collaboration and the use of personal/professional connections driven by technology. My review of the literature suggested that connectivism has been studied exclusively in online learning settings (Ebersole, 2013; Fischer, 2014; Rodriguez, 2014; Yeager et al., 2013). However, when viewed through the lens of andragogy, connectivism seems suited for adult learning in any collegiate setting. This review situates connectivism within andragogy as well as provides a rationale for the selection of the qualitative research design.

First, I reviewed the literature on connectivism and andragogy to highlight the relationship of these concepts and their ability to serve as a framework for this study. I then compared adult learning theories and frameworks that address the use of technology and relationships in learning in order to explore the role connectivism may play in adult college courses. Lastly, I reviewed qualitative study designs in order to select the best research design for this study.

Literature Search Strategy

In this review, I collected and synthesized materials related to connectivism and andragogy from books, peer-review journals, dissertations, Internet websites, conference presentations, and blogs. Databases searched included Academic Search Complete,

Education Research Complete, Educational Resource Information Center (ERIC), Sage

Premier, EBSCO Host, and Google Scholar. Sixty-one empirical studies were used in this

review. Keywords and phrases used in this search included *connectivism, andragogy,*

adult learning theory, online learning, adult higher education, adult education faculty,

business education, and *learning technology*.

Conceptual Framework

Initially offered by Siemens through a series of papers and the book, Knowing

Knowledge (2005, 2006a, 2006b), and advanced through his work with Downes (2005,

2008), connectivism has gained some support in academia as a concept that can be used

in explaining how technology and connections impact learning as well as a framework

that could guide instructional design.

Developed through the integration of chaos, network, complexity, and self-

organization theories, connectivism considers how people, organizations, and technology

can construct knowledge collaboratively through the use of technology (Al-Shehri, 2011;

Chatti et al., 2010). Proposed as the learning theory for the digital age (Marquardt, 2011;

Siemens, 2005), connectivism states that learning occurs in an environment of shifting

elements and is not under individual control (Siemens, 2005a). Connectivism frames how

technology has changed the way people communicate and interact, thus changing how we

learn (Barnett et al., 2013; Marais, 2011; Trnova & Trna, 2012).

Connectivism shares the challenges that many adult learning frameworks and

theories have encountered in the quest for validity. In fact, much of the early research on

connectivism focused on the discourse of its standing as a learning theory (Bell, 2010;

Brill, 2008; Calvani, 2009; Kop & Hill, 2008; Siemens, 2006a). Siemens (2005) initially

offered connectivism as a means to address the limits of how current theories speak to

how recent technologies impact learning. However, several authors were at odds with

Siemens's assessment of connectivism or the need for a new theory. Kerr (2006) noted

that other theories, such as social constructivism and constructionism, address knowledge

that exists externally to individuals–thereby covering technology's impact on learning.

Verhagen (2006) questioned the theoretical validity of connectivism, seeing it as a

pedagogy of education that should live more at the curriculum level than the instructional

level.

In response to these critiques, Siemens (2006a) countered that "the real challenge

for any learning theory is to actuate known knowledge at the point of application" (p. 3).

In this paper, Siemens attempted to address the concerns of his critics. Downes (2005a;

2005b) also offered a series of Internet articles and presentations advancing connectivism

and situating it as a form of distributed knowledge that relies on interaction (Calvani,

2009; Downes, 2005b). However, academics offered additional critiques to

connectivism's theoretical standing. Sims (2008) accused Siemens of using the work of

his predecessors to advance instructional design concepts into a theoretical offering while

Kop and Hill (2008) offered insights that situated connectivism as more of a framework.

Although this argument continues, the overarching opinion seems to be that connectivism

offers insight into how learning environments can make use of technology (Al-Shehri,

2011; Barnett et al., 2013; Clinton, Lee, & Logan, 2011; Marais, 2011).

Based on my review of the literature, studies on connectivism have been limited to learning that occurs in online settings (Boers, Bilgi, Rinsdorf, & Vaagan, 2012; Kryczka, 2014; Miller, 2009; Walsh, 2013) and learning settings using social media technologies (Bissell, 2014; Dennis, 2011). These studies take place in K-12 and higher education; however, a review of these higher education studies show that they tend to focus on traditional-aged students or adults in MOOCs. These studies have looked for the existence of connectivism in a field of study, as Trnova and Trna (2012) examined in their action research on connectivism in science education, or the measurement and/or evaluation of the characteristics of connectivism (Mackness et al., 2010; Tschofen & Mackness, 2012). Using an approach similar to this study, Kryczka (2014) used connectivism as a framework to study the experiences of doctoral students taking courses in online and onsite courses. While Kryczka's dissertation provides guidance on how connectivism can impact the adult student experience, I did not uncover any studies specifically focused on adults in business undergraduate degree granting courses or programs.

Connectivism studies focused on MOOCs (Espinosa, Sepúlveda, & Montoya, 2015; Milligan, Littlejohn, & Margaryan, 2013; Saadatmand & Kumpulainen, 2014) tend to look at the experiences of students taking these courses and often highlight the types of engagement or levels of participation that occur. Espinosa et al. (2015), however, recently questioned the challenges of less motivated students in MOOCs, which shows a desire to look deeper into the impact these offerings have on learning. Many MOOCs' designs are guided by connectivist principles and feature multiple methods of interaction, using

social technologies combined with traditional online delivery methods (Beaven, Comas-Quinn, Hauck, de los Arcos, & Lewis, 2013; Clarà & Barberà, 2013; de la Garza, Sancho-Vinuesa, & Gómez Zermeño, 2015; Milligan et al., 2013). These offerings are now called cMOOCs (connectivist MOOCs) and have allowed for the characteristics of connectivism offered by Downes (2005a)–autonomy, connectedness, diversity, and openness–to be measured. These studies typically highlight the potential usefulness of connectivism in engaging the diverse perspectives of individual learners, while calling for continued development and understanding of its role in learning before accepting it as a theory. Saadatmand and Kumpulainen (2014), for example, noted that the creation of networks and the development of professional connections were seen as a strong advantage to the 20 students who were interviewed or completed questionnaires in their mixed-method study.

Validity challenges do exist within MOOC research, as authors note that the nature of MOOCs and distance learning courses may color the interpretation of connectivist principles as individual learners decide on their level of engagement (Rodriguez, 2014; Yeager et al., 2013). These learners can choose to limit or accentuate their participation and their level of sharing or interaction (Fischer, 2014). MOOCs also face challenges in the context of usefulness in academic settings, due to difficulties of finding a standard assessment method and gaining buy-in within institutions (Ebersole, 2013; Fischer, 2014; Fomin, 2013; Klemmer, 2013; Marr, 2013; Reilly, 2013; Whitelock, Gilbert, & Wills, 2013). As Fisher (2014) stated, a paradox exists as we have to accept the importance of connectivist principles in these environments in order to further

understand their importance. The focus of this research lives in this paradox, as it will explore connectivist principles in adult-focused course settings in order to provide an additional perspective to connectivist offerings.

Connectivist Characteristics

Research studies focused on the application of connectivism have offered insight on the key characteristics of connectivism in learning settings. For this study, these principles (autonomy, openness, connectedness, diversity) were explored through the experiences of instructors in business courses in undergraduate adult degree-granting programs. I did not uncover any studies focused on business degree programs. However, the retrospective study by Barnett et al. (2013) used connectivism to guide instruction in an online graduate education. Employing a course design that they later found did not meet their established definition of pure connectivism, the researchers were able to identify each of the four characteristics of connectivism during their reflection on the course.

Autonomy is the desire for self-directed learning, which Mackness et al. (2010) explained as "the learners' choice of where, when, how, with whom and even what to learn" (p. 4). Self-direction, as will be discussed later, is a concept that may situate connectivism within andragogy as well as other more established adult learning frameworks. Researchers have both measured the levels of self-direction and offered frameworks based on connectivism to increase self-direction among learners (Bentley et al., 2014; Conradie, 2014; Kim, 2012).

Connectedness, which is sometimes described as interactivity, is seen as the ability to connect with others and is grounded in the networking aspects of connectivism. Connectedness as a principle has not received much research focus through the lens of connectivism (Burch & Harris, 2014); however, it is addressed in communities of practice (Wenger, 2000) and personal learning networks (Richardson & Mancabelli, 2011) studies, which I will discuss in this review.

Downes (2010a) noted that the principle of diversity focuses on the availability of multiple perspectives to learners. This diversity is spurred by the experiences of learners and is used to provide insight to the entire network. Diversity in learning networks will also be discussed in the community of practices section of this literature review, as there has been very little research focused on diversity and connectivism.

The principle of openness highlights the ability and willingness to share information. Rodriguez (2013) indicated that in MOOCs, participation is vital to building knowledge. Recent studies have addressed the role of openness in MOOCs and have found that a challenge exists with students who are actively following in these course but do not heavily engage in interactions with other students. These researchers have found that while not appearing as engaged as more open and active students, such students still benefit from the openness of others and may participate more if directed (Marr, 2013; Milligan et al., 2013; Saadatmand & Kumpulainen, 2014). Openness can also be perceived as a more technical term referring to the nature of the learning resources being used in the course (Kennedy, 2014).

The role that the characteristics of connectivism play in learning runs parallel with some of the more prominent adult-focused principles, particularly andragogy, self-directed learning, and communities of practice. In the next section of this review, I focus on these theoretical offerings and frameworks in order to address these synergies, as well as speak to why andragogy was selected as the framework for this study.

Frameworks and Principles in Adult Learning

It is widely accepted in the literature that for learners in adulthood, the role of previous experience, the desire to learn, and the relevance of material to the adults' situation are important factors in learning situations (Brookfield, 1986; Houle, 1992; Knox, 1986; H. Miller, 1964; Tennant, 2006). These factors often have been incorporated into learning theories and frameworks that are focused on adults (Caffarella, 1994; Sawchuk, 2003). Although principles such as andragogy and self-directed learning are seen as standard by practitioners, similarly to connectivism, they have yet to stand up to the scrutiny required to be considered a theoretical grounding (Abik & Ajhoun, 2012; Davenport & Davenport, 1985; B. Taylor & Kroth, 2009).

In support of this study, literature on the development and practice of the offerings mentioned above were reviewed in order to position connectivism within an adult learning framework. Learning frameworks and principles that make use of recent technological innovations were also reviewed to support this placement. Additionally, a rationale of viewing connectivism through an andragogical lens for this research will be provided.

Andragogy

Seen as the term most associated with adult learning (Carpenter-Aeby & Aeby, 2013), andragogy is based on assumptions about adult learners made by Knowles in the 1970s (Henschke, 2011; Knowles, 1980, 1984). Over time, these assumptions have been accepted both within and outside of the adult education field (Merriam, 2003) and have become the basis of a framework for designing and developing programs for adult learners. Andragogy focuses on the adults' desire and motivation to learn, as well as the need to be able to interject their own experiences into the learning process. Adult-focused programs trust the assumptions of andragogy to understand why and how adults learn. While other frameworks are used in the development of these programs, it is andragogy that is often used as the common point of reference (Egizii, 2015; Hurt, 2007; Santos, 2012).

Institutions face the challenge of incorporating technology in adult learning classrooms. Thompson (2013) provided a view of technology through an andragogical lens, noting that while institutions understand the need to incorporate technology, they struggle getting buy-in from faculty, which may lead to an underutilization of these innovations. However, these technologies provide students greater access to information, and the principles of andragogy provide an understanding of how technology can affect learning. Recent examples of this thought process were included in Ehiobuche and Justus's (2014) view of teaching entrepreneurship and Johnson et al.'s (2014) study on the use of an andragogical framework to teach public policy doctoral courses. Each of these studies highlighted common themes, including the initial nervousness students have

as they develop a sense of control over their learning and a hesitancy to work in groups. It was also discovered that over time, an understanding and acceptance of multiple perspectives, an ability to weigh the perspectives, and an increase in student ownership of their learning develop (Johnson et al., 2014).

Andragogy provided the lens through which connectivism is seen in an adult college classroom. By using andragogy as a guide, it was determined if and in what ways the characteristics of connectivism (autonomy, connectedness, diversity, and openness) exist in business courses in adult degree-granting programs. Although other theories and principles greatly influence adult learning, andragogy is the most common reference point in adult programs (Davenport & Davenport, 1985; Henschke, 2011; Nealand, 1992; Santos, 2012; B. Taylor & Kroth, 2009).

Self-Directed Learning

Self-directed learning has also been perceived as a fixture in adult learning, as adults see the ability to have or at least share the responsibility for their own learning as a catalyst for learning itself (Edmondson, Boyer, & Artis, 2012; Merriam, 2001; Stockdale & Brockett, 2011). Self-directed learning gained attention from researchers in the same time period as andragogy (Merriam, 2001), primarily through the work of Houle (1961) and Tough (1979). Knowles (1975) and Brookfield (1986) provided insights into self-directed learning, defining the phenomena as a process in which "individuals take initiative in designing learning experiences, diagnosing needs, located resources, and evaluating learning" (Brookfield, 1986 p. 40). Components of self-direction include goal

setting, assessment, change strategies, and evaluation (Miller, Jones, & Chickering, 1981).

Self-directed learning is seen as a key component to student engagement in primary, secondary and post-secondary education levels (Brown, 2002; Fitzpatrick, 2012; Francis & Flanigan, 2012; Martinez & Mcgrath, 2013; Thomas, 1993). However, conflicting opinions can be found in the literature addressing self-directed learning's usefulness in predicting academic success. For example, Francis and Flanigan's (2012) survey of 188 college students did not find a significant link between students' perceptions of self-directed learning and their self- reported academic performance. Alternatively, Edmondson, Boyer and Artis (2012) compiled and reviewed self-directed learning studies, finding a significant link between self-directed learning and high GPAs.

These quantitative studies provide some insight into the levels of self-directed learning in college settings; however, little is offered regarding the impact of self-directed learning on the individual student experience. Edmondson et al. (2012) called for additional studies that focus on how self-directed learning impacts student success in and outside of the classroom (p. 45). Kvedaraitė et al. (2013) phenomenological study provided some insight into the individual experience of self-directed learning, noting that self-directed learners learn beyond the boundaries of formal learning, through job and life activities as well as in various groups and through collaboration with colleagues. These experiences are in line with the findings of connectivism research as well as studies on communities of practice, that are addressed below.

Self-directed learning studies have also looked at how technology impacts self-direction. The role that advancements in technology have played in self-directed learning in both formal and informal learning environments has received increased attention with the advent of the Internet. Ghost Bear's (2012) descriptive study focused on the learning strategies used by adults when participating in online auctions. Ghost Bear found the strategies used are grounded in both self-directed learning and andragogy. Chu et al. (2012) distributed 593 questionnaires using the Constructivist Internet-Based Learning Environment Scale (CILES) and the self-directed learning readiness scale to study what adults from 26 community colleges and senior learning centers in Taiwan preferred about Internet-based learning environments. Using a structural equation modeling analysis, the researchers were able to identify a relationship between the knowledge interests of transformational learning (technical, practical and emancipatory) and self-directed learning.

Bonk et al. (2015) highlighted motivational factors including curiosity, interest, and internal need for self-improvement as well as success factors such as the freedom to learn, resource abundance and choice. Francis and Flanigan (2012) noted that based on the data they collected, students with highly developed self-directed learning characteristics would likely focus more on what they feel is relevant, as opposed to the material as a whole. These findings are in line with accepted adult learning principles. Creating high levels of relevance and individual responsibility seem to be important factors in ensuring self-direction and deeper learning as supported by studies at every education level (Hodge et al., 2011; Martinez & Mcgrath, 2013; Wickersham & McGee,

2008). In studying the perceptions of connectivism in this research, insight will be gleaned into how factors such as self-direction exist in combination with the other characteristics of connectivism.

Self-directed learning is also impacted by collaboration. Personal learning environments for example, call for the use of multiple technologies and personal and professional contacts in order to gather and aggregate information (Attwell, 2007; Drexler, 2010; Kesim & Altınpulluk, 2013; Kožuh et al., 2015). Kesim and Altinpulluk (2013) noted that a personal learning environment "integrates user's personal and professional interests" (p. 2) and is based on a self-directed learning approach. The integration of both personal and professional interests likely would add value in adult settings, as adults look to integrate their life into their learning. Self-directed learning is also studied in MOOCs as researchers look to measure MOOC participants' levels of autonomy (Bentley et al., 2014; Espinosa et al., 2015).

Communities of Practice

The concept of communities of practice has been greatly impacted by the development of technology. As innovation has made it simpler to communicate and share information, learning communities have become broader, stretching all over the globe. Lave and Wenger (1991) put forth the concept of communities of practice in their work on situated learning, which posits that learning does not solely take place in the individual learner's mind, but is a factor of development of a learning community. They highlighted the development of these learning communities among professionals such as midwives, tailors, and butchers, fields not often seen as requiring high levels of tech

savvy, but which demonstrate knowledge that has been passed down for several

generations. As Hansman (2014) suggested, communities of practice provide the

opportunity for sharing between members of the community, and as such are useful in the

learning process.

As technological innovations have provided a means for increased collaboration

and information sharing, communities of practice have become increasing relevant in

developing learning scenarios. Studies show that communities of practice have usefulness

for both students and instructors, in both structured education and workplace settings as it

provides a means to learn past the barriers of a classroom setting (Hodgkinson-Williams

et al., 2008; Mallory et al., 2014). Griffiths and Arenas' (2014) case study of the ENTEL

telecommunications company found that the development of their community of practice

was critical to the company's success. The possibility exists that communities of

practices can provide the same level of success in academic settings, as suggested in

Buckley and Strydom's (2015) longitudinal study viewing communities of practice as a

model for learning. Hlapanis and Dimitrakopoulou (2007) developed a model to

incorporate technology into courses based on communities of practice and adult learning

frameworks. These authors developed three parameters – knowledge acquisition, social

interaction and expression of identity – that should be included in eLearning, as well as

highlighted the increased levels of collaboration generated through the use of technology

for adult learners. Mallory et al. (2014) provides similar insight on the effectiveness of

social interaction and expression of identity using communities of practice as a

framework to create a peer review process for nontraditional faculty. The authors noted

that faculty participants in this study benefited from experiencing the interactions and activities as students, thereby seeing how students perceive the course activities.

The development of communities of practice are in line with connectivist principles and, as the literature supports, could work hand-in-hand to provide an impactful learning experience for adult learners (Hernández-Encuentra & Sánchez-Carbonell, 2005; Hlapanis & Dimitrakopoulou, 2007; Mallory et al., 2014). In fact, Hubbard and Levy (2006) suggest that the development of communities of practice led to the development of connectivism. Buckley and Strydom (2015) found that although students were interested in creating these communities in their courses, it was more important to find faculty willing to guide the creation of these communities in order to ensure learning is being shared in the group. As this proposed research will look at connectivism from the viewpoint of the instructor, it may serve as an extension of Buckley and Strydom's study by highlighting the instructor perspective.

Social interaction, that can be considered an element of connectedness, may or may not be a determining factor in whether learning occurs. While communities of practice and connectivism studies speak to learning being strengthened by "exchanges, pooling, interactions and contradictions of viewpoints" (Abik & Ajhoun, 2012; Coryell, Spencer, & Sehin, 2014; Taylor et al., 2012), research also indicates that less active participants can learn in these settings (Barnett, at el., 2013; Garcia et al., 2013; Hodge, et al., 2011; Kop, 2011). Many of these studies took place in online courses, and these researchers speak to the ability of learners to vary their level of participation based on

their interest – a function of andragogy – while being active enough in other aspects of a course to be successful.

Other Frameworks Impacted by Technology

Connectivism is not the only framework that highlights the impact of recent technological innovations in learning. The acceptance of computers and the Internet as tools to spur learning has existed for close to five decades and has steadily grown in importance. The Web 2.0 movement, which gave focus to interaction and collaboration using Internet technologies (Conole & Alevizou, 2010; O'Reilly & Battelle, 2009; Solomon & Schrum, 2010), pushed forward the development of a multitude of frameworks and offerings that highlighted how learning is impacted through the use of the Internet as a conduit or median to share knowledge. My review of this literature highlights that many offerings, like connectivism, tend to be grounded in the impact of Web 2.0 technologies. These frameworks tend to highlight specific technologies to spur learning (Cain & Policastri, 2011; Conn, 2013; Dunlap & Lowenthal, 2009; Lin et al., 2013) or stem from previously proposed theories and frameworks that adapt technology in order to remain relevant (Bullock, 2013; Chu, et al., 2012; Jones, 2013; Kim, 2012).

One of the best illustrations of how Web 2.0 innovations are being used to develop new learning frameworks is social media. Over the past decade, numerous studies have shown both value and highlighted potential issues with the use of social media platforms in learning environments (Hagan, 2013; Mondahl & Razmerita, 2014; Moran et al., 2011; Rheingold, 2008; Salavuo, 2008; Shemberger & Wright, 2014). Facebook, for example, has been used as a research platform for K-12 and higher

education research. These studies tend to highlight the higher level of collaboration that takes place using these platforms, while noting the challenges to maintaining the focus of students, copyright and privacy concerns, as well as the reluctance of faculty to incorporate social media into their teaching tool kits due to discomfort with the technology and/or concerns for their own privacy (Cain & Policastri, 2011; Kabilan et al., 2010; Munoz & Towner, 2009; Roblyer et al., 2010). These findings mirror those of studies conducted on other popular social media sites such as Twitter and Pinterest (Dhir et al., 2013; Grosseck & Holotescu, 2008; Hansen et al., 2012; Munoz & Towner, 2009; Roblyer et al., 2010). In addition, the results highlighted in these studies are similar to those uncovered in studies on communities of practice (Wenger, 2000) previously discussed. Frameworks and models taking advantage of the positive aspects of social media include the phases and scaffolds for technology use and collaborative group work (Parra, 2013), Drexler's networked student model (2010), personal learning environments (Couros, 2008; Kesim & Altınpulluk, 2013; Manning, 2015), and pervasive learning (Agarwal & Nash, 2011).

Mobile technology has also impacted learning by providing increased access to content and enhanced ability to collaborate. E-books, learning management systems (LMS), podcasts, Skype and other tools are now used in both online and campus-based learning environments (Lal, 2015; Samaka & Ally, 2015; Soga et al., 2015; Yen, Hou, & Chang, 2015). Although early on, the research emphasis was placed on the anxiety that adult students and faculty faced implementing these technologies into their courses (Johnson et al., 2012; Saadé & Kira, 2009; Sivakumaran & Lux, 2011), the growth into

adulthood of a millennial generation comfortable with E-learning and mobile technology has shifted the discussion to accessing the applications of these tools (Baris & Tosun, 2013; Bonvillian & Singer, 2013; Bullock, 2013; Conn, 2013; Heo & Lee, 2013). By studying the characteristics of connectivism as they exist in adult courses, additional insight will be provided into how other technology-based frameworks exist in this setting.

<div align="center">**Connectivism Through the Lens of Andragogy**</div>

The advancement of technology has provided learners with an additional means of accessing, storing and passing knowledge. Many of the frameworks discussed above highlight how these technological advancements can be used in adult learning settings and the impact that these tools have on the learning process. While each of these offerings provide insight into the possibilities of connectivism in adult learning settings, andragogy shares a high level of synergy with connectivism and provides a common point of reference for participants in this study. Al Shehri (2011) found that using connectivism as a framework was justified for his study, noting that connectivism "is a natural conceptualization of learning practices that the learners being studied have been using" (p. 17). In this proposed research, the same can be stated in reference to andragogy.

Like connectivism, andragogy was offered as a means to incorporate a new perspective into the conversation of learning. In fact, Knowles referred to andragogy as "a new label and a new technology of adult learning" in his early works (Knowles, 1968, p. 351). However, these "new" perspectives shared the desire to foster learning through interaction with the experiences of others. Eugen Rosenstock, who initially used the

concept of andragogy in the 1920s, called for "true education" (Loeng, 2013) in which schools make learners more conscious of their experiences and the need for social integration, and foster the ability to draw learning from life events. Siemens likely saw connectivism as a theory that uses technology and connections (Siemens, 2005) as a means to foster Rosenstock's true education. While it is unclear if early proponents of andragogy foresaw technology would one day exist that made the formation of learning networks as easy as they have become, it is clear that andragogy has always focused on providing adults with the means to share experiences to foster effective learning.

Qualitative Research Methodology

Qualitative research allows the researcher to seek a deep understanding of a phenomenon, perspectives or viewpoint (Merriam, 2002). This style of research does not usually begin with a stated theory, as the process leads to a thorough description of the situation. As the purpose of this study was to explore the experiences instructors have with the characteristics of connectivism (autonomy, openness, diversity, and connectedness) in courses offered in adult-focused, degree-bearing programs, the use of a qualitative design was appropriate in order to gain a deeper understanding of connectivism.

A review of qualitative research in adult education confirmed the logic of using this approach for this study. Examples can be found of qualitative studies examining adult principles (Ferozali, 2011; McEwan, 2000; Suarez, 2004), technology driven pedagogies (Bridgemohan, 2012; Clark, 2013; Downing, 2013; Reyes, 2014), and collaboration in adult learning scenarios (Brodt, 2011; Carter, 2012; Feigenbaum, 1998;

Jensen, 2014). Much of this research was done as case studies. The authors looked to, as

McEwan (2000) stated, "focus on a contemporary phenomenon within a real-life context"

(p. 16). Although each of these studies examined a particular phenomenon through a

person's lived experiences, Jensen's (2014) work provided clear insight into the use of a

basic interpretive approach, noting its usefulness in "understanding the meaning a

phenomenon has for those involved" (p. 34). While the interpretive approach is similar to

phenomenology in its focus on discovering the meaning of a phenomenon,

phenomenology looks to find the essence of this meaning while interpretive designs look

to focus on providing a description of said phenomenon (Thorne, 2016).

Interpretive designs have been used to explore the impact of learning on student

preparedness (Thorne et al., 1997; Thorne et al., 2004; Watt & Pascoe, 2013) as well to

develop teaching strategies based on student experiences in learning settings (Bernard,

2015). Chamberlin (2015) used a similar approach to study to provide insight into service

learning in college courses. Her selection of the basic interpretive approach was guided

by the simplistic focus of her study, which did not require her to examine the root of

service learning through a phenomenological approach or to deeply delve into a multi-

faceted approach that would have been provided by a case study. She used interpretative

phenomenological analysis (IPA) to identify the perceptions of faculty members'

experiences with service learning in their courses. IPA (Smith & Flowers, 2009) is a

framework that allows the researcher to examine how individuals make meaning from

experiences. Pietkiewicz & Smith (2014) notes that IPA "synthesizes ideas from

phenomenology and hermeneutics resulting in a method which is descriptive as it is

concerned with how things appear and letting things speak for themselves" (p. 8).

Although the aim of this study was not to capture the essence of an experience, which is

the goal of phenomenology, IPA is a useful analysis framework for an interpretive study

viewing the experiences of professors/instructors with connectivism.

While this review uncovered qualitative studies that used connectivism as a part

of the theoretical framework (Arteaga, 2012; Bissell, 2014; Dabney, 2012; Davis, 2012;

DeWitte, 2010; Fucoloro, 2012; Kryczka, 2014; Miller, 2009; Quezada, 2012), no studies

were found that focused on how the characteristics of connectivism played out in adult

programs focused on business. As the technologies and strategies often used in teaching

business courses are also used in real world application, this study could lead to

additional work on connectivism in these settings.

Summary

This chapter provided insight into the literature that influences this study.

Connectivism has been shown to provide understanding in online modalities, but limited

research exists focused on its use in face-to-face settings. In addition, this review

supports the need for the need of studies of the existence of connectivism in adult

learning settings.

In this chapter, literature was highlighted on connectivism and andragogy, that

framed this study, as well as other key adult frameworks and concepts. In addition, the

impact of technology in learning settings was reviewed to support the need for this study.

Lastly, a rationale was provided for using a basic qualitative approach for this study.

Although more research is now being conducted on connectivism, a focus on its impact

on adult learning would be valuable to institutions that have adult student populations. This study attempted to fill this void in the research by identifying connectivism in both online and campus based courses for adult learners. Chapter 3 will provide deeper insight into the design and implementation of the study.

Chapter 3: Research Method

This study was designed to discover how instructors experience the characteristics of connectivism in courses they offered in undergraduate, adult-focused degree programs and their perceptions on how they influence student learning. In this chapter, I describe the methodology used in this research study. I explain the design of the study, the rationale for using the basic interpretive qualitative approach, the methods for data collection, and the data analysis procedures. In addition, I discuss the measures taken to mitigate ethical concerns and ensure the trustworthiness of this project.

Research Questions

This study was designed to address the following research questions:

RQ1 – In what ways do instructors experience the characteristics of connectivism (autonomy, openness, connectedness, diversity) in classes they have taught in adult focused undergraduate degree programs?

RQ2 – How do instructors interpret and explain how the characteristics of connectivism (autonomy, openness, connectedness, diversity) affect the learning that occurs in classes they have taught in undergraduate adult focused degree programs?

Research Design

This study was conducted using a basic interpretive qualitative approach (Merriam & Tisdell, 2016; Thorne, 2016), as the aim was to understand how connectivism exists in business-related courses in adult degree programs. Connectivism centers on networks supported by technology and connections to foster student learning. This design allowed the characteristics of connectivism (autonomy, openness,

connectedness, diversity) to be explored and analyzed from the perspective of instructors who teach in adult-focused degree programs.

The basic interpretative qualitative approach yielded descriptive accounts from the participants, who constructed real-world scenarios that shed light on a phenomenon. These accounts were interpreted and analyzed to determine how the experience can be enhanced or reduced (Patton, 2014). The basic interpretative approach is common in education research (Bryant, 2014; Burgess, 2003), as it allows the researcher to draw from concepts and models to frame the study while focusing on a particular aspect of the teaching-learning experience (Merriam & Tisdell, 2016; Thorne, 2016). In this case, andragogy served as the conceptual framework for examining connectivism in adult degree courses.

Other research designs were considered before the decision was made to use a basic interpretative approach. Initially, a phenomenological design was considered, as this approach looks to understand instructors' perspective on how connectivism exists within courses offered in adult degree programs. Phenomenology focuses on participants' accounts of their lived experiences. However, in this study, the essence of connectivism was not explored; rather, the emphasis was on the collective perceptions of the characteristics of connectivism held by the instructors.

A case study approach was also considered, given the potential to gain in-depth insight into how connectivism exists in adult degree courses. Case studies allow researchers the opportunity to describe activities that a specific group engages in, using multiple data points to build the picture (Merriam & Tisdell, 2016; Yin, 2009). However,

like other researchers looking to collect individual perceptions to understand an experience, I determined that collection of multiple data points was not necessary to address the research questions (Chamberlin, 2015; Paul, 2015). In this case, a basic interpretative approach was sufficient to interpret these findings (Merriam & Tisdell, 2016).

Role of the Researcher

As the researcher, I was responsible for each portion of this research process. I recruited, designed, and conducted interviews as well as transcribed, analyzed, and interpreted the data. Data analysis was conducted using the research software program Dedoose.

The possibility for research bias did exist during this project, as I have 10 years of experience teaching and working with adult students. Based on this experience, my expectation was that the characteristics of connectivism currently existed in some form and to some degree in adult courses. To mitigate the chance that my expectations might color this research, steps were put in place to monitor and manage my opinions during the data collection and analysis process. All semi-structured interview questions were reviewed by my dissertation committee to ensure no bias existed. In addition, during the data collection and analysis, and while writing the results of the research, I maintained a journal that allowed me to capture any potential biases that surfaced. This process allowed me to remain mindful and mitigate the potential of research bias, as well as report on these challenges (Fischer, 2009; Holliday, 2007; Rolls & Relf, 2006).

Sample Size and Rationale

As with many qualitative studies in education, the sample size for this project was relatively small. Similar studies of this type reached the point of saturation within nine to 18 participants (Biniecki, 2015; J. Jones, 2007; Bradbury & Mather, 2009;). Although participants were recruited and interviewed until saturation occurred, it was expected that 10 instructors teaching in adult-focused degree programs would provide sufficient results, which was the case. As suggested by Creswell (2009), it is at times more important to provide sources that bring depth to the study as opposed to a large sample size. Thirteen instructors responded to the invitation to participate in this research. Of those, 10 were interviewed, as three potential participants had scheduling conflicts that did not allow them to be interviewed.

Selection Criteria and Participant Recruitment

A purposive sampling approach was used to select participants. As the researcher, I actively reached out to instructors through my personal LinkedIn contacts, recommendations from my LinkedIn, and academic professional network and groups associated with adult learning provided by academic contacts. Prospective participants were vetted through the use of a brief survey designed to ensure they met the selection criteria.

The selection criteria included instructors who taught undergraduate business courses in adult-focused programs full time for at least 2 years, or at minimum five business courses with adult learners in a ground or online environment. In addition, participants had to have access to technology that allowed them to be interviewed

virtually, through the Web conferencing tool Big Blue Button. The requirements for its use were a computer with an Internet connection and a microphone and/or webcam.

I considered whether the participant pool should be limited based on the course delivery method. However, given the focus of this study on the existence of connectivism in adult courses regardless of modalities, instructors teaching online or in campus-based courses were eligible to participate. In order to support the connectivist nature of this study, participants were recruited through the use of social media website LinkedIn. IRB approval from Walden University was obtained prior to the beginning of the recruiting process. The IRB approval number is 08-05-16-0309964. From the pool of 13 potential participants collected from this recruiting process, 10 professors were selected for interviews based on their availability at the time the data collection took place. The three participants who were not interviewed had scheduling conflicts that did not allow them to participate.

Data Collection Method

Data were collected through in-depth interviews with instructors teaching business courses in adult-focused degree programs. In-depth interviewing has been described as a conversation with a purpose (Marshall & Rossman, 2015), that allows the researcher to explore general topics to uncover participants' viewpoints and leaves room for participants to frame and structure their responses in their own way. The responsive interviewing technique was used to develop a partnership with the participants (Rubin & Rubin, 2011).

Semi-structured interview questions were designed to uncover the specific instances in these courses that the characteristics of connectivism could exist (Appendix A). In addition, instructors were asked to elaborate on techniques and tools that they use in the course design and delivery of their courses. As Gillham (2005) suggested, a semi-structured interview "facilitates a strong element of discovery, while allowing a structured focus on an analysis in terms of commonalities" (p. 72). As Yanow and Schwartz-Shea (2015) stated, "interviews offer a way to learn how individuals knit their own conceptions together and put them to use" (p. 177).

The interview questions were developed with the assistance of my dissertation committee and tested on two colleagues currently working in academic settings. Each interview was completed in one setting lasting on average 30 minutes. These interviews were conducted virtually and recorded using the Big Blue Button Web conferencing tool. While conducting the interviews, I kept notes of key responses that I used for data analysis in conjunction with the interview transcripts.

Data Analysis

In basic interpretive qualitative studies, the researcher is the primary instrument of data collection and analysis. Research studies that use this approach strive to provide a descriptive account of the findings using the conceptual framework and literature that influenced the project (Merriam & Tisdell, 2016). For this research project, data were collected and analyzed concurrently in order to find accounts of the characteristics of connectivism (autonomy, openness, diversity, and connectedness) as well as how the participants perceived their impact on students' learning. By constantly analyzing the

data as they were being collected, I was able to build a solid interpretation of what the

data were saying (Marshall & Rossman, 2015). Data analysis for this project was done

using Dedoose, a software package designed to support qualitative research. Researchers

note that the advantages of using software in the data analysis process include increased

efficiency in the coding and data storage processes (Cope, 2014; Ritchie, Lewis, Lewis,

Nicholls, & Ormston, 2013; Webb, 1999).

The first step in the analysis process was the verbatim transcription of the

recorded interview. During the transcription phase, the notes I took during the interview

were included into the transcription in bold font in order to distinguish the participants'

thoughts from my own (Elliott &Timulak, 2005). The data were analyzed using separate

processes for each research question, as reported in Chapter 4.

To address the first question of how instructors experience the characteristics of

connectivism in their courses, key points of each interview were coded based on a priori

coding system using the characteristics of connectivism (autonomy, openness, diversity,

and connectedness; (Gavin, 2008; Ritchie et al., 2013). Each interview was read multiple

times to ensure the initial coding was sufficient or if adjustments to the coding were

needed. During the analysis process, additional codes were added to the system

including *characteristics exist*, *online environment*, *teaching strategy*, and *order of

connectivist characteristics in the course.* However, as I massaged this data, I found that

the characteristics exist codes became redundant to the individual characteristic codes

and were removed. Teaching strategy and the order in which the connectivist

characteristics appeared in the course did not provide any insight to the research

questions and was omitted. The themes that emerged from this coding were as follows: fostering self-direction for the characteristic of autonomy, teaching disposition, and sharing experiences for the characteristic of openness, depth, or variation of experience and outside resources for the characteristic of diversity and encouraging engagement and creating collaboration for the characteristic of interactivity/connectedness. Although no themes developed from the code of online environment, these findings were reported as they provided insight to how connectivist characteristics are perceived by instructors.

To address the second research question, the IPA approach was used to study how instructors interpret and explain how the characteristics of connectivism affect learning in their courses (Pietkewicz & Smith, 2014; Smith & Flowers, 2009). The IPA approach provides a 6-step process to insure the analysis of the data reflects the experiences and perspectives of the study participants while allowing the researcher to utilize their subject knowledge in the analysis (Jeong & Othman, 2016). These steps, adapted from Chamberlin's (2015) study on service learning, include the following:

1. Reviewing the recorded interview and reading each interview transcript multiple times.

2. Making notes on how participants described how they perceive learning is affected by connectivism in their courses and developing a coding system based on these notes.

3. Identifying themes as they emerged from the review of the notes and codes.

4. Looking for connections between each of the themes identified in the interview.

5. Repeating Steps 1 through 4 for each interview.

6. Looking for patterns that existed across each of the interviews.

The codes used in this analysis included the following: characteristic impact learning autonomy, characteristic impact learning– openness, characteristic impact learning–diversity, characteristic impact learning–connectedness, and teaching strategy. From these codes, student decision to learn (autonomy), effective dialogue (openness), learning from others (diversity), and learning for engagement (interactivity/connectedness) emerged as the themes used to formulate the report on the perspective of instructors on how connectivist characteristics impact the learning in their courses. Individual discrepancies from participant interviews are also reported as they provide an additional perspective concerning the research question.

Trustworthiness and Reliability

The conversation of trustworthiness and reliability in qualitative research often centers around ensuring that data collection is sound. This involves having an established rationale and a clear set of procedures for collection, analysis and interpretation of the data (Lincoln & Guba, 1986; Rolfe, 2006; Williams & Morrow, 2009).

Guided by Lincoln and Guba (1985) and Yin's (2015) work on qualitative research projects, multiple strategies were put in place in order to ensure the trustworthiness and reliability of this research study. Strategies such as thick descriptions of participant responses and an audit trail of the steps in this research were incorporated in the design.

Member checking occurred during the interview process and at the conclusion of data analysis. Member checks during the interview allowed study participants to confirm that their responses were captured accurately. Each participant was emailed a copy of her or his transcript and asked to ensure that the interview was captured correctly. None of the participants requested any changes. Triangulation was obtained through semi-structured interviewing and the use of multiple methods of data analysis.

Lastly, I maintained a reflective journal during the research process. As suggested by Ortlipp (2008), this journal allowed me to document my insights and thoughts to ensure that my judgement was sound. This process is common in qualitative studies and is critically important to the documentation of the researcher's personal research journey and helps validate the authenticity of research data collected using this method (Lamb, 2013).

Summary

In this chapter, I highlighted the rationale, design, and method for selecting a basic interpretive qualitative research approach. The process for participant selection and the interview process were also addressed. I closed with a discussion on the approach for analyzing data as well the steps taken to ensure trustworthiness and mitigate reliability issues.

Chapter 4: Results

Introduction

The two-fold purpose of this study was to investigate how instructors experience the characteristics of connectivism in business courses in adult-focused, undergraduate degree programs and what these instructors perceive as the impact of these characteristics on learning in their classrooms. The primary focus of this chapter is to present the findings from a thematic analysis of the interview data. Also included are the demographic profiles of the participants and a summary of the data collection process. The research questions follow:

RQ1 – In what ways do instructors experience the characteristics of connectivism (autonomy, openness, connectedness, diversity) in classes they have taught in adult-focused undergraduate degree programs?

RQ2 – How do instructors interpret and explain how the characteristics of connectivism (autonomy, openness, connectedness, diversity) influence the learning that occurs in classes they have taught in undergraduate adult-focused degree programs?

Participants' Demographics

Ten business instructors in adult-focused, undergraduate programs participated in this research study. The demographic profile of the participants represents a diverse age range, from 31 to 65 years of age; the median age fell in the 41 to 50 range. Eighty percent of the participants were female, and 70% of the participants resided in North Carolina. The average level of teaching experience was 12.4 years, and ranged from 3 to 22 years. These characteristics are listed in Table 1. Each instructor also had experience

teaching in both face-to-face and online modalities. Nine of the 10 participants held a

doctoral degree. Pseudonyms were used for participant names to ensure confidentiality.

Table 1

Participant Demographics

Participant	Age range	Sex	Years teaching	Location
Michelle	41-50	F	3	NC
Candy	51-65	F	7	NC
Linda	41-50	F	8	NC
Harley	31-40	F	9	NC
Harriet	51-65	F	10	NC
Mary	41-50	F	14	MI
Larry	41-50	M	16	NC
Victor	41-50	M	17	MD
Carla	51-65	F	18	AZ
Jane	51-65	F	22	NC

Setting and Data Collection

All of the interviews were conducted and recorded virtually using the Web

conferencing tool, Big Blue Button. The Big Blue Button tool was accessed by myself

and the participants through the Canvas learning management system within an offering

titled Instructors' Perceptions of Connectivist Characteristics in Adult Undergraduate

Courses. The Web conferences were then re-recorded using the screen capture software

Camtasia for storage, as the Canvas system only retains audio/video files for 14 days.

During the data collection process, three participants had issues with the Big Blue Button

platform, two of which were due to Internet access and the other due to not being in a

private area at the scheduled interview time. In each of these cases, we were able to use a

cellular phone and digital recorder to capture the interview data, which were then

transferred to a digital file via Camtasia for storage. Additionally, during one interview,

there was severe background noise that masked responses to some questions. At my

request, the participant responded to those questions via email, and those responses were

included in the transcription of the interview.

Data Analysis

Participants' responses to the first research question were analyzed using the

characteristics of connectivism (autonomy, openness, diversity, and connectedness) for

the priori coding system (see Chapter 3 for details). The code *online course environment*

also emerged during data analysis. I watched each interview on the Big Blue Button

video conferencing platform, and the transcripts were reviewed multiple times to confirm

the selected codes. Key points were coded until I was satisfied that the codes reflected the

patterns emerging from the data of instructors' perceptions of connectivism in their

courses. During the coding process, several patterns emerged within each code, and these

codes were converted to categories that allowed the findings to form themes within the

framework of andragogy and connectivism.

Seven themes emerged from this analysis, each of which aligned with a

characteristic of connectivism. For the data to constitute a theme, at least 70% of the

participants spoke to the essence of the theme. The themes were fostering self-direction

(autonomy), teacher disposition, sharing experience (openness), depth or variation of experience and outside resources (diversity), and engagement and collaboration (interactivity/connectedness).

The second research question focused on the participants' perspectives on the effect characteristics of connectivism have on students' learning. As described in Chapter 3, the analysis was done using the IPA approach. The codes used in this analysis included the four characteristics of connectivism. I coded excerpts of each interview based on the connectivist characteristics. I then compared the responses to each question to identify patterns and connections in the data that generated the themes reported in this study. As with the first research question, the themes were confirmed when a pattern was found to be consistent with at least 70% of the participants. These themes included student decision to learn (autonomy), effective dialogue (openness), learning from others (diversity), and learning for engagement (interactivity/connectedness).

Evidence of Trustworthiness

With regard to trustworthiness, several strategies were employed to ensure the credibility, transferability, dependability, and confirmability of the findings of this study. Prolonged engagement occurred through my over 10 years' experience in adult learning and the recruitment of participants and the use of my professional network on LinkedIn. While being mindful of not clouding the analysis of data with my own perceptions, I was able to use my experience to guide my understanding of what participants reported during the interview process. Peer debriefing occurred in many stages of the development and implementation of this study, as I frequently interacted with my peers at my place of

employment, who in many cases also work with adult learners or have conducted qualitative research.

The triangulation of the data through multiple analysis methods, the use of reflexivity, thick descriptions, and audit trails were incorporated in the design of the research project. The vetting of potential interview questions was performed with colleagues unfamiliar with connectivism and with my dissertation committee. During data analysis, I referred to the interview recordings and transcriptions in order to interpret potential findings. In addition, member checking was performed after the interview process as each participant in the study received a copy of the transcription and was asked to provide feedback to ensure that their thoughts and responses were captured accurately. During this process, two participants responded with only typographical comments. Lastly, I maintained a reflective journal during the research process. This is a common process in qualitative studies and allowed me to document my insights and thoughts in a manner that ensured my judgement was sound.

Findings - Research Question 1

With regard to the first research question, all of the participants confirmed the existence of the characteristics of connectivism in their undergraduate, adult-focused business courses. Themes were identified that strongly reflected each of the connectivism characteristics. These themes included fostering self-direction (autonomy), teacher disposition, sharing experience (openness), depth or variation of experience and outside resources (diversity), and engagement and collaboration (interactivity/connectedness). Each of these themes is addressed below. Additionally, as all of the participants had

experience teaching online courses, they addressed how these characteristics existed in the different modalities. Although each of the participants taught adults in business programs, very few commented about the characteristics of connectivism specific to this subject matter; instead, they commented on teaching adults in general.

Fostering Self Direction Reflects Autonomy

All of the participants noted that they have observed students exercising autonomy in their adult-focused undergraduate courses. *Fostering self-direction*, which the instructors described as providing resources, guidance, and learning activities, encouraged students to become self-guided. The participants' perception reflects Downes's (2010) definition of the connectivist characteristic of autonomy; he viewed learners as having the desire to be guided and able to guide themselves, according to their own goals, purposes, objectives, or values.

Instructors described tools and resources they use in their courses to create the opportunity for self-direction. Jane focused on the role of the syllabus: "Learners should be guided and able to guide themselves, according to their own goals, purposes. We give them a syllabus which takes care of trying to make sure the learner can be self-motivated and self-guided without too much confusion." Other participants noted assignments and projects as opportunities to foster self-directed experiences. Michelle spoke of encouraging self-direction, but not letting them fail:

> With most of my assignments I allow student to really bring their projects and things of that nature based on what's of interest to them. For example, for my group project in my seminar class, it's totally up to them to pick the topic, to pick

who they work with ... I do ask to hear what the topic is ahead of time so I can

talk with them if it needs to be something a little more focused or a little broader.

Carla also focused on course projects as an opportunity for developing autonomy:

"I would say in terms of autonomy the example that first comes to mind is when they

were given the opportunity to identify their particular focus in their final project, which

demonstrated their learning throughout the course." Other participants, like Candy, noted

that when adult learners return to school, they are guided by their own goals and desire

for self-direction:

> They're able to guide themselves through the classroom using their own goals and
>
> purposes once they understand what those things are…. Sometimes they are a
>
> little lost because it has been 10 or 20 years since they have been back to school
>
> … even 5 years, but once they understand that they have their own goals, yes,
>
> they are guided by autonomy.

In some cases, instructors related their approach to self-direction in terms of

frameworks commonly used in adult learning. Harriet, for example, explained her

approach to self-direction in terms of Maslow's hierarchy of needs and andragogy:

> I don't see them [the characteristic of connectivism] as steps or stages. I just
>
> don't see it that way, I see it as more of a holistic approach. I really believe that
>
> adults are and should be encouraged to be self-directed learners. I really
>
> subscribe to Malcolm Knowles' perspective and that's why I like to let the
>
> students get into the course as soon as possible. They know how to reach me and
>
> they can reach me if they want to but I want them to get a firm hold and know the

lay of the land before they decide they're going to bail. You know they need to

know what things are required. I want them to get the foundation that they need as

Maslow suggested …. I want them to find what their basic needs are in order to

be successful in the course.

Teacher Disposition and Experience-Sharing Leads to Openness

The themes of teacher disposition and experience-sharing emerged as instructors

saw themselves as the primary catalyst in creating openness in the classroom and the

intentional creation of a climate for open sharing of experiences both between students

and with instructors. In connectivism, the characteristic of openness speaks to the ability

to freely opt in and out of the system while allowing a free flow of ideas and artifacts

within the system. The participants addressed openness in terms of the communication

that occurs in their courses. Like many instructors, Harley and Linda pointed to their

open disposition as the reasoning for openness in their courses. Harley said,

I believe openness is just a reality in my classroom and it could be because I'm

open. One of the things I like to do is start off week one by letting my students

know how I teach. My point in doing so is I want them to be engaged. I don't

want to give a monologue and use a punch of PowerPoints that they can read

themselves.

Linda viewed openness in her courses through her desire to ensure students are

comfortable asking questions:

My students can ask me any question they want to …. I am there to answers the

questions and provide the answers the best way that I can and keep my

environment and my classroom open so my students don't feel any hesitation to

ask different questions. Something that may seem like a silly question, there's

really not a silly question. And that's how I view openness in my classroom. Just

to keep everything open and the atmosphere conducive to learning.

Most instructors also noted that as faculty they sometimes see that how adult

learners feel about education may limit openness in the courses. Candy said,

You know I have students that sit there and do the work. Listen to the lecture and

do the work, get a grade and I don't feel like I've reached them until I read their

work and then I've had students that are in my face. I'm the type of teacher that

prefers students that are in my face, because, I get to know you. If I get to know

you, I can kind of understand why you are veering off to the left and try to help

you get back on course because I feel like you are more interested in learning

why.

However, Jane noted that the skill set of faculty may determine openness:

It also depends on the skill of the faculty member. The faculty member can drive

more substantive postings and discussions and meaningful discussions and

threads. So it depends on that faculty member, how skilled they are in setting that

whole tone and getting that all started.

Jane also providing insight into how faculty may perceive some students and how that

perception may define openness:

I think that for adult students they just are like checking the course off… in a

hurry to get that piece of paper. And I think that… I don't know if they will take

the time to reflect, share ideas, to learn from the sake of learning. I think that

faculty members are sort of in that same mindset.

The theme of experience-sharing reflects how the participants intentionally strive

to create a climate for open sharing of experiences both between students and with

instructor. Mary spoke the encouraging respectful conversations in her classes:

I know that in our classes we encourage students to be able to speak freely, just as

long as they're respectful. So in the discussion forums that a place where students

can be open just as long as the respectful, they can share their interpretation of the

chapters, maybe something that they experienced in the workplace. They can be

open about that in the classroom.

Similarly, Carla spoke to students being able to accept different perspectives:

Well the first thing with openness is that you have to agree to disagree. And we

have to accept each student's own personally experience as theirs. There's no

wrong or right way to receive that or hear it. It belongs to them. So what we do in

the classes leads to a better understanding of why it went that way and was there a

better way to approach it, and to get a good understand into what that person's

ideas where in terms of that particular issue.

Linda shared a sentiment address by other participants which suggested that

openness in courses could be related to factors such as age, or that some students, while

not as vocal as other can be just open to share when prompted:

My younger crowd or younger generation is not so open because they are kind of

scared of this material; it's very new to them. So to get them to open up I my put

them in a group that has stronger individual in that topic so they can work

together on an assignment, and it helps them to kind of open up. To start

expressing their feelings and what they think about the ideas and bringing stuff to

the table themselves.

Mary suggested that openness may sometimes be limited in the online environment:

Well, in openness, we live in a society where people may not be as open as they

would like to be especially in an online environment, they may be more open in

the classroom when their face to face with each other and they know each other's

intent. But when you put people behind a computer it and words and print,

sometimes that can be a little intimidating and sometimes people won't open up

as much as they would if they were in a classroom where people know the body

language and the intentions.

In addition, some participants like Victor, spoke to the negative aspect of openness as an

opportunity to open the door for bias and at times cause a one directional flow of

information:

I would say right now in the education genre openness has probably lived and

breathed and thrive better than is it has here recently. Because we're doing things

across the board. You're going to have your introverts, that's true, but the

overarching theme, I think they are more willing to share, the flow may be a little

bit one directional but they are willing to share ideas within the classroom…Is

that a positive, for the most part, yes. It also can create an issue if that open access

to materials isn't accurate.

Diversity Through the Depth or Variety of Experience and Outside Resources

Participants framed diversity in terms of two themes: the varying types and depth of experiences adults bring to the class environment and the range of outside resources that can impact the classroom experience. The connectivism characteristic of diversity, defined by Downes (2010) as a system of educational resources structured so that each person in a society instantiates and represents, a unique perspective, based on personal experience and insight, constituting a valuable contribution to the whole. Michelle provided an overview of how diverse experiences of students play out in her courses:

they all seem to be at different stages of their lives so one may have a 20 something year old who's really just starting out, another maybe in an entry level position or something along those lines. They have young children or things of that nature. I've had 50 year olds in my course who have been working for decades and have adult children that have completed college. They have maybe started college and then stopped, started again and came back so. There's definitely a lot of diversity I see from term to term in terms of what kinds of experiences they are bringing to the classroom.

Jane also addressed diversity in her courses, speaking to the value of drawing on the work experiences and the unique perspectives of adult learners:

one of the things that is prevalent in our institution is that people that teach adults, absolute love the fact that adults bring to the table their life experiences and their work experiences and share that openly. Adults tend to like to share both online and in person. So the faculty here acknowledge that and embrace that.

Additionally, the theme of resources outside the course representing diversity emerged. Multiple times during the interviews participants addressed the use of support services and real world examples of concepts as tools that added to their learning experience in their classrooms, as illustrated by Larry:

I have at times asked students to reach out to others and get insight from others. For example, I will have them go to the library to have the librarians assist them by providing other resources. Sometimes we have asked for them to go to the math lab …. I try to give them the ability to reach out and get the perspective to another person, not just myself…

Although I see myself as a great resource for the things that I know, other people can assist them as well. It also brings a comradery between myself and other people on campus.

Encouraging Engagement and Creating Collaboration for Interactivity/Connectedness

Participants described interactivity and connectedness in their courses through anecdotes of inclusion and strategies they used to create student-to-student contact. Two themes emerged, encouraging engagement, as participants were intentional about creating a level of engagement in courses, and creating collaboration though assignments and discussion which fostered student interaction. Downes (2010) referred to the characteristic of interactivity/connectedness as the level of individual immersion in a community or society resulting in knowledge development or transfer. Participants intentionally look for ways to create student engagement in courses, as Harley addressed:

There's always a way to get people participate and connect and feel included. So I try my best to make sure students feel included. They're also prompted to be engaged in the discussions given their experiences. And even if unemployed and never experienced anything in industry, some of them do have a perspective based on what they read, what they have heard from friends, family members and so forth.

Michelle spoke to how students can gauge their level of connectedness:

I guess I would look at it in terms of the learners in my class definitely have the ability to do the very basic and get through the class or really delve into the class, get into the class discussions, interact with other students, interact with me. So in that sense they definitely have their own ability to gauge the level of connectedness they are going to have in the course and I do see a variety of things; you know some people come in and they give the bare minimum just to get through the class and some people really delve into the discussion and interact with more than two people and things of that nature.

While identifying the existence or importance of openness in their course, Victor addressed creating engagement online:

I think engagement is one of the most important… whether it is online… and it can still happen online if you're doing online chats, or creating discussion boards. Obviously it's much easier face to face, but I think the engagement process really reduces a lot of the barriers between instruction and student.

Harley addressed how she felt that creating engagement is possible but more challenging in online environments:

> I believe students are more engaged in the classroom rather than when I have prompted them to do online work. Not sure why, maybe it was the technology, it wasn't as user friendly, it just wasn't conducive to the learning environment quite frankly... I am not a techie, but we have recently implemented videos or commercials, we can actually link videos, publish those videos each week or what have you and our students can see us. I think that piece helps with that whole relatability piece of academia. And I think because of that it's getting better.

The theme of creating collaborations spoke to developing group assignments or classroom discussion to foster student interaction. Many participants used this approach in their courses, as summarized by Candy:

> What I like to see in the classroom is for students to get an accountability partner. Somebody to keep you on track and somebody you can keep on track ... I ask them to get an accountability partner so they are able to connect with someone in class. So if we don't have a connection they can call another classmate that can help them. I love it when I see that lightbulb come on cause then I can see that they got it from somebody even if it's going on outside the classroom... I love that part of it.

Larry spoke specifically to the use of group work to create collaboration:

> What I try to do is sometimes is have them get in groups, sometimes it's inside the classroom sometimes in outside the class and if they want to work on their

assignments together they can if not that's ok as well, what I try to fosters is a

connectivist engagement and they can be family orientated while still trying to

learn at the same time.

Linda, sharing a sentiment similar to Larry, spoke to how the team environment created

through group work fosters student interactivity:

the team environment allowing each individual to bring their own unique method

of thinking to the group. And as far as interconnectivity …. My students do in a

group bring their own individuality to the group and I think that's how we stay

connected, extracting… first of all generating a synergy and then extracting out of

those activities that they learn and I think that's how we stay connected. And I

think that's a part of the connectedness in my classroom.

Connectivity in Online Courses

Although no overarching theme emerged about online learning and its

relationship with connectivism per se, most of the participants had taught in online

settings. Like Jane below, participants shared a variety of perspectives on the

characteristic of connectivism in relation to online courses:

In the ground classes I would say yes [these characteristics exist]. In the classes

online I would probably say that not all of those elements are there… Students in

the ground courses seem to be able to form natural study groups. And they tend to

do more team projects. I think the team projects are more … maybe more

challenging for online students, because if some drops the ball and there're not

answering their email it's difficult.

Jane also spoke to some instructors' inability to focus on being proficient at online

pedagogy until it becomes a requirement:

> It wasn't until my current job now that I'm really interested in the subject of
>
> connectivism, particularly in the area of trying to make distance learners part of
>
> the learning community at my institution.

Victor addressed how faculty training could play a role in these challenges:

> A lot of faculty teach online that never took an online course. So how can they
>
> fully appreciate the challenges that the students are having if they have never
>
> experienced them themselves. I think that pretty much ties into this as well.
>
> These perceptions of connectivism confirm its existence in both face-to-face and

online modalities.

Findings - Research Question 2

In addressing the second research question, each of the participants confirmed the

influence and impact that the characteristics of connectivism have on students' learning

in their courses. These themes that emerged from the interpretative phenomenological

analysis (IPA) analysis included: the *student decision to learn (autonomy), effective*

dialogue (openness), learning from others (diversity) and *learning from engagement*

(interactivity/connectedness).

Autonomy and the Student's Decision to Learn

Most of the participants spoke to the value of autonomy for adults in the learning

process. The theme that emerged was the student decision to learn as the driving force for

successful learning in adult courses. Participants felt that students' capacity to learn is

influenced by their decisions about whether and in what ways they will learn in courses. This decision making process is often based on students' individual goals, as expressed by Michelle:

> let's just take the autonomy and the self-directed learning. A lot of our learners that I interact with know exactly why there're there. They have decided… they have made a conscious decision to come back to school for a specific reason, to obtain a specific degree or just receive a credential so I definitely see them directing themselves through this educational journey.

Mary shared insight on how students decide how they will learn, speaking in their voice:

> ok I come to my class and I get to decide what chapters I [the student] want to read first, just as long as I get all of the reading done for the week I'm not limited, I have that autonomy so autonomy impacts learning because I'm in control. From a psychology standpoint when people feel in control there willing to do everything, when they feel that it is forced on them and its wanted this way or that way they tend to lose interest, so autonomy certainly impact learning.

Instructors like Carla addressed how they manipulate their courses to spur students' desire to learn:

> I think once we've gone through and created that comfort level I think I encourage the student to take responsibility for their own learning and then I encourage them to work with someone else, preferably that they don't know that can help them look at a whole new side or perspective of what they're working on in class. (Carla)

Victor offered a different perspective, providing insight into how the students

ability to decide may cause challenges in learning:

I would say 10 years ago from an autonomy standpoint they were probably more

or less a definite clearly defined level of instructor/student. The lines weren't

blurred where I think that it is a lot now where it's not student/professor,

student/doctor. … I'm not trying to incite class warfare or anything like that but I

think when those lines start to become blurred that… I think that creates a barrier

in the learning process for a student. Because there not viewing the professor as

the quote unquote as the god of knowledge now their willing to debate and

question almost everything that you say. Part of that granted is a positive thing

and I think nurtures the learning environment but I think there has to be some

willingness to accept what the material says, what the instructor says as the

foundational starting point and then the question process can begin.

Openness Impacts Learning Through Effective Dialogue

Openness was reported by the participants as students being willing and able to

share ideas and experiences in the classroom or virtually. The theme of effective dialogue

emerged as the sharing of information and resources between students as well as by

instructors was seen to impact learning in courses. Harriet provided insight into how this

dialogue plays out:

I ended a course 2 weeks ago, a summer course and the students did report that

they learned from one another. By reading the different discussion boards and

getting some different points of view…, if it's a mom with three kids and they're

just going back to school I know that they kind of read on another's posts and see

how is a mother… a mom with kids at home working their schedule. You know

they kind of relate to one another, exchange information a little bit that was and so

they are connecting to peers in like circumstances.

Linda also provided a viewpoint of openness from the standpoint of allowing students to

have a voice in class:

I can't speak on other faculty members but it has worked well for me. I think

when you give the students the opportunity to voice their opinions on different

items, to give feedback on different items, you allow students to broaden the

knowledge that they gain. And it doesn't have to be all about accounting. It can be

about other thinks outside of accounting. And I think with that atmosphere it

brings the class members and the class instructor together.

As illustrated by the following Victor, faculty should be open to this dialogue:

I think again that goes back just as much to the faculty as it does the student. The

openness, that mentality, has to be grasped by both. The student obviously has to

be open to new ideas, thoughts and concepts, materials and modalities, but I think

the faculty to a certain extent has to be open to those same materials that they are

telling the students to view but also I think they have to be open to the result. If

they are engaging with a student, they have to be open to at least some to the

resources and some of the materials and concepts they're getting from the student

as well…Only at that time is that going to be the perfect storm for an educational

process to happen between the student and the faculty.

Dialogue in courses depends on remaining respectful, thereby creating a level of comfort

so that learning can take place as addressed by Carla:

> You know, I think it's really important for a student to feel comfortable, to speak
>
> out, even if it's in disagreement with what's being said. And not be criticized or
>
> ridiculed for that because I always make it clear the first night that I learn as much
>
> from you as you will from me... We all create the baseline information which
>
> helps us look at several perspectives and then make a decision. Even if you don't
>
> change your realm of thinking you could hear other feedback.

One challenge to creating this dialogue in courses identified by Victor was the ability to

ensure that the course stays on track within the various perspectives being shared: "I

think a lot of times that too much openness to thoughts and concepts can detour them

from the objective. I think in order for them to get to that objective we have to nurture

that engagement." This sentiment was shared by other interviewees, however, Linda

seemed comfortable with allowing students to go off topic and then make the discussion

relevant to the content being covered:

> Sometimes I let it flow ... I also try to bring whatever your talking about back to
>
> my topic. Well you know now, a lot of students have internships and their talking
>
> about these different types of internships and I have to let them know, it doesn't
>
> matter that if you're in management or in marketing, every company has an
>
> accounting department. So the marketing department has to talk to the accounting
>
> department and you have to have some fundamental or some foundation in

accounting… So you can take those types of topics and actually bring back to doing accrual accounting, or cost accounting or something of that nature.

Diversity in Learning From Others

A theme that emerged addressing diversity was the ability students have to learn from others within the classroom environment as well as from resources outside of the course. The participants indicated that adult students gain insight from the experiences and perspectives of other students. Multiple instructors spoke to how the diversity in their courses provides students with multiple perspectives that spur learning as Linda offered:

Along with interactivity, diversity comes in so many different ways. From age levels, of course from the different cultures, backgrounds that someone comes from all of this plays a part in my classroom. My older generation, the adult classes that I teach, I have perspectives from, White males, I have perspectives from Black females, I have perspectives from the Black males. So all of these dynamics that just come together… the conversation, the discussions that come out of that are phenomenal.

Harriet added:

But then in other ways, I've seen other students who are learning from some of the, I guess I would say, more advanced students. Those students really present a good model to their peers. And those students read and respond to some of the students that they know are better than they are. That have the experience and have a leg up. And they read those students' posts; they don't always post to those students' posts but they do when I think their confidence grows as the

course progresses. I notice that they will read them but they won't always
respond. But I do notice that later in the course they feel more ready to respond to
those students.

Group activities can be diversified in order to ensure that multiple perspectives
are shared as Carla:

I think of diversity; people want to be able to identify with someone like
themselves. And it doesn't have to be Black, White, male, female it can be in
learning styles, receptiveness to how the information is presented, I think
whenever we did activities I tried to split up people in terms of not all men
together, not all women together, you know breaking up the culture and I think a
lot more learning takes place. When you heard theories and concepts and
suggestions for resolutions coming from different diverse people in the group
because we think differently. So I think group think worked regardless of the
diversity makeup in that group.

The diversity of resources themselves also were seen to have an impact on
learning. For example, Jane spoke to the use of her campus writing center as a resource:

Well if you have a writing center you say to the student "I'm going to give your
paper back to you. It's not college level, or you haven't cited probably but here's
what I want you to do. I'm not going to grade it, I'm not going to give you a zero,
I want you to run it through the writing center to get the help that you need and
I'm going to accept it late. If you do that so that your grade improves." So rather

than just punishing people for having diversity and ability to write, I feel like I'm

putting them in the hands of a writing coach or something.

Victor pointed out that diversity can have a negative impact on learning:

if you're looking at resources that are available right now we are in an

information quote unquote media overload of points of perspective... I don't care

what it is, from flag burning all the way to instant access to social media …it's

almost to the point where the individual perspectives of thought are being lost and

it's being herded into whatever everyone else believes. All the way to information

overload where people don't know what to believe. So I think that in one aspect

the thinking and concept of diversity is beginning to disappear and I think

education is not immune to that.

Learning From Engagement

In addressing the characteristic of connectedness, the ability to learn from

engagement emerged as the primary theme as in almost every case, participants pointed

to the level of engagement as the catalyst to learning. The level of interaction that occurs

in course impacts learning Harriet provided strong insight into seeing engagement as a

requirement in her courses:

Two terms ago a very heated debate in class … a face to face class, where the

class itself, the students themselves, where engaged in a debate about …. I think it

was a gun law, and you had two … I had four veterans in the class… two

specifically got into a very heated argument … and as an educational professional

I wanted to hear the debate because I'm very passionate. And sharing their

perspectives as civilians, but also as veterans, in different branches of the military

was very enlightening. I took notes, it prompted me to do some research as well

as the other students… You developed something of an extra credit assignment

because it was that rich of a discussion.

Engagement, interaction and connecting were frequently tied to impacting

learning when discussed by the participants. The quote by participant Victor not only

illustrates the impact of engagement on learning but also how adult students expect it in

their courses:

I always try to again relate it back to real world situations. I think engagement is

one of the most important… I think the engagement process really reduces a lot of

the barriers between instruction and student... A lot of natural barriers for students

hearing receiving new information they don't totally agree with or understand... If

they don't understand it, it forms a natural barrier because now they're starting to

feel mentally uncomfortable. But I think if that instructor can create that bridge,

that linkage between them and concepts and the material. I think it reduces that

and makes the student feel more comfortable and willing to accept knowledge or

whatever point it is regarding the topic… I think nowadays students are

demanding that level of engagement. They're seeking it out.

Michelle spoke to how engagement in his courses tend to appear during group

assignments:

So they decide their ability or their intensity in terms of being connected with

classmates within the class. And I see that becoming an issue for those students

around the group project. Because I can tell what students have connected, who

are dialoging outside of the course when it comes to the group project because

they are already set. They already know who they want to work with they have

already talked about it. Then I usually have a couple of outliers who haven't built

those connections with people that are now like oh goodness what do I do. Who

can take me, who's willing to take me when you haven't really built up those

relationships with students or with other learners in the class.

Michelle also provided insight on how online students are particularly looking to learn

from engagement:

In terms of abilities to connect with other people, I think here is where I see a

spectrum of things, there are some people… particular interesting with our online

program students, there are some that jump right in and want to interact with

people. I've had students that are out on the west coast, students that are here on

the east coast, some that are a little further south than us and some of them are

really eager to connect with other people… and I see this more from students that

are in (the school's home location) who are not in our online program.

Summary

In this chapter, the data collection and analysis processes for this study were

outlined. Additionally, steps taken to ensure the validity of this study and the findings for

each research question were reported. The analysis of the data collected through the semi-

structured interviews confirmed that each of the characteristics of connectivism were

experienced in the courses of these adult instructors, and were found to affect the learning in these courses in multiple ways.

For the first research question, the themes emerging from the data included fostering self-direction (autonomy), teacher disposition, sharing experience (openness), depth or variation of experience and outside resources (diversity), and engagement and collaboration (interactivity/connectedness). For the second research question, which focused on the impact to learning, the themes included student decision to learn (autonomy); effective dialogue (openness); learning from others (diversity); and learning for engagement (interactivity/connectedness).

In Chapter 5, I will discuss how these findings are interpreted in relation to the conceptual framework and other relevant literature as well as make recommendations for the use of this study and further research on the topic. I will close this study with a discussion of its significance for social change in the profession.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this study was to discover how instructors experience and interpret the characteristics of connectivism (autonomy, openness, diversity, and connectedness) in business courses offered in adult-focused degree programs. In addition, this study captured instructors' perceptions of the impact the characteristics had on learning in their courses. With projections indicating that adult student populations at institutions of higher learning will continue to increase into the next decade, colleges that are less experienced with serving adult learners must become better prepared to provide effective instruction to what may become their largest demographic. By providing insights into how the characteristics of connectivism currently exist and impact learning in business courses, I emphasized how connectivism could serve as a framework for developing adult courses in higher education. The analysis of interview data led to four major findings and three topics of interest for future research emerging from this study.

Four Major Findings

The first finding was that instructors are intentional about developing autonomy within adult students to ensure self-direction. An instructor's desire for students to become more self-directed is often a catalyst for the creation of resources and learning activities that require students to guide themselves in the learning process in adult courses. The second finding was that the instructor's level of comfort with the sharing of experiences and insights with and between students in their courses can influence students' openness to learn course content. The third finding was students embracing the diversity of experiences and resources in these courses can foster adult learning. The

multiple levels of student experience and the variety of resources inside and outside of the classroom environment impact learning in adult business courses. The fourth finding was that instructors develop strategies for students to engage and interact with each other to nurture learning through interactivity.

In this chapter, I provide an interpretation of these findings in light of the conceptual framework and relevant literature on connectivism. I also discuss the limitations of this study. Additionally, I make recommendation for future research on the topic and highlight the implications of this work in the development of adult higher education programs.

Interpretation of the Findings

The findings of this study confirmed that instructors perceive the characteristics of connectivism to exist in business courses in adult-focused programs and to impact the learning that takes place in these courses. In sharing their experiences, participants also connected the concept of connectivism to what they are already doing in their classrooms.

Below, I discuss the connections made between the key findings, the conceptual framework of the study, and the research on connectivism as reported in the literature.

Instructors Intentionally Develop Autonomy to Ensure Self-Direction

For the participants, the characteristic of autonomy was seen as a means to assist students in developing the ability to guide themselves based on their objectives and goals. Self-direction has been a dominant component in adult learning frameworks and has been cited by Knowles (1975) and Merriam (2003) as vital to adult learning. Brookfield's (1986) reference to self-directed learning as a process in which individuals take initiative

in designing learning experiences, diagnosing needs and locating resources (p. 40) was

mirrored by instructors as they spoke to how their students approached their courses. The

ability to support self-direction appeared to be vital from the perspective of these

instructors as they shared anecdotes of the efforts they made to develop assignments and

resources that allowed their adult students to exercise some level of control over the

learning experience. Although some of these learning resources were reported as being

other students, outside resources, and the instructors themselves, the characteristics of

connectivism seem to support a framework in which the adult student's desire for

autonomy leads them to seek out resources to develop their own understanding. This

finding is similar to Hogg and Lomicky's (2012) study of student perceptions of

connectivism in online courses, which reported students clearly feeling autonomous.

Additionally, the reporting of out-of-course resources as impactful in adult settings is

similar to Conradie's (2014) study, which used personal learning environments and a

connectivist approach to support learning.

Sharing of Experiences Influences Openness to Learning

Openness was seen as a vital component to learning in adult courses. Participants

worked to create and develop a level of openness in their courses and in many cases felt

that they were the catalyst for openness in their courses. This finding is in line with the

studies on openness in MOOCs, such as Saadatmand and Kumpulainen's (2014) work

suggesting that learning in the online space is influenced by interactions and network

creation. This finding further links connectivism with adult education frameworks. From

an andragogical perspective, the open dialogue and sharing of experiences that

participants spoke to highlights the role learners' experience plays in course settings. As Knowles (1984) suggested, adults bring a variety of experiences to college courses and desire the opportunity to interject their own experiences into the learning environment. If instructors teaching adult courses are comfortable allowing students to share their experiences, rich learning experiences occur, as this study confirms.

A challenge I identified in terms of openness is the viewpoint that many instructors see themselves as the main point of connection in the course. The instructors found themselves as the primary catalyst for openness in their courses and in many cases noted that their individual perceptions of students guided how they saw openness occur. For example, the possibility exists that the instructor may involuntary work as a gatekeeper of information and resources, therefore not allowing a high level of openness to exist. However, this perceived limitation is similar to a phenomenon that MOOC studies have referred to as lurking. In this phenomenon, learners actively follow along in the courses but do not engage with other learners. This does not show that learners are disengaged; rather, the course content is enough to help them learn the new material and they make the decision not to engage with other students (Milligan et al., 2013). What the instructors in this study perceived as a limitation to openness is likely the autonomous nature of these adult learners playing out during the course.

Embracing the Diversity of Experiences Can Foster Adult Learning

In terms of diversity, the findings speak to the variety and complexity of experiences that adult learners bring to the classroom as well as the availability of resources developed by instructors and or sourced by students outside of the classroom

environment. Just as Downes (2010) defined diversity as a system of educational resources structured so that each person in a society represents a unique perspective, instructors provided insights concerning the impact the student's personal experiences made on the group as a whole. Diversity in these cases played out similarly to Lave and Wenger's (1991) concept of communities of practice, in which knowledge is passed through the community by information and experience sharing. As addressed in Chapter 2, researchers have suggested that communities of practice led to the development of connectivism (Hubbard & Levy, 2006). Researchers have also indicated that instructors serve as the primary catalyst to the development of these communities (Buckley & Strydom, 2015), a point that is supported through the findings of this research.

Although connectivism stresses the use of technology in the learning process, participants did not express a reliance on technology to assist in fostering diversity in their courses. However, diversity in resources was addressed in terms of the incorporation of support resources such as libraries and writing centers, which provided students with a means of gaining additional perspectives and to validate their own experiences. These resources are now more frequently provided to students virtually, via online learning management systems and portals, and are likely incorporated into the adult student's learning network, much like Drexler's (2010) networked student model, highlighted in the literature review. Therefore, it is likely that students are being exposed to technology resources in a nonthreatening manner.

Instructors Develop Strategies for Students to Engage and Interact

The findings for interactivity/connectedness indicate that engagement and collaboration occur in courses and impact learning. Engagement was consistently reported as being encouraged by these instructors. Many participants used group work as a means to create collaboration in their courses, thereby allowing students to engage with each other, bringing in learning resources and developing learning networks. These findings help position connectivism within adult learning frameworks such as communities of practice, which highlight the importance of the adult experience and ability to learn from peers. Research on communities of practice speaks to the opportunity for sharing between members of the community (Wang, 2014) and has been found to be useful in adult classroom learning settings (Mallory et al., 2014) and workplaces (Griffiths & Arenas, 2014).

Similar to the work of Johnson et al. (2014), interactivity/connectedness was reported as sometimes challenging to create. However, the acceptance of another person's perspectives and level of engagement that is created from the ability to explore and debate the experiences of others can lead to learning in adult settings.

The experiences of the participants teaching in both onsite and online settings provided valuable insight into how the characteristics of connectivism exist, regardless of delivery modality. While each participant reported both the existence and perceived impact on learning of each of the connectivist characteristics, the data highlighted a discussion that is still prevalent in academia, as some instructors voiced challenges in developing or managing certain characteristics in online modalities (Callister & Love,

2016; Sörensen & Brenner, 2016). With connectivism being almost exclusively studied in online environments (Espinosa et al., 2015; Kryczka, 2014; Saadatmand & Kumpulainen, 2014; Walsh, 2013), it is rare that instructors teaching in face-to-face modalities are asked to provide insight into a framework perceived as an online-only offering. This study is one of the first to view connectivism across modalities and provides the groundwork for expanding connectivism research.

Limitations of the Study

The limitations of this study included the sample size of study, reliance on social media to recruit participants, and limiting the participant pool to only instructors rather than including student perspectives and artifacts to corroborate instructors' perceptions.

Sample Size and Sampling Method

The sample of 10 instructors that were interviewed was in line with similar basic interpretive studies. Each of the participants met the stated criteria of instructors who teach undergraduate business courses in adult-focused programs and have taught business classes full time for at least 2 years, or at minimum five business courses with adult learners in a ground or online environment. Although eight of the participants were female and seven participants lived in North Carolina, the strength of this sample existed in the range of teaching experiences these instructors offered. The average length of teaching experience was 12.4 years, and each participant had experience teaching in both ground and online environments.

Use of Social Media in Participant Recruitment

The use of the LinkedIn social media platform as the primary recruiting tool may be considered questionable to conventional researchers, but acceptance of the use of social media in academic research is growing. In this study, I explored instructor experiences with the characteristics of connectivism, which incorporates technology into learning. Therefore, the use of a social media in the data collection process actually added credibility to this research.

Instructors/Facilitators as Participants

The decision to focus on instructors/facilitators as study participants may be seen as a limitation. However, instructions/facilitators provide a unique perspective in that they are often seen by the student as the person who controls the experience and by administrators as the person who both facilitates learning and manages the expectations and challenges that occur in a course. It was this dual perspective that made the instructor/facilitator ideal for providing insight into the existence of the characteristics of connectivism in these settings.

The experience of the participants teaching in both onsite and online settings also provided valuable insight into how the characteristics of connectivism exist regardless of delivery modality. With connectivism being almost exclusively studied in online environments (Espinosa et al., 2015; Kryczka, 2014; Saadatmand & Kumpulainen, 2014; Walsh, 2013), it is rare that instructors teaching in face-to-face modalities are asked to provide insight into a framework perceived as an online only offering. This study is one

of the first to view connectivism across modalities and to provide a groundwork for expanding connectivism research.

Recommendations

This study provides multiple directions for future research in the field of adult learning and connectivism. Possible future studies highlighted in previous sections include focusing on the order in which the connectivist characteristics play out in courses and incorporating social media tools into adult courses in order to gauge the usage and outcomes in these settings. Although the findings of this study did not heavily reference specific technologies used in courses, future researchers could also look into the other technologies used to create and support the characteristics of connectivism in classrooms or through online platforms.

As addressed in Chapter 2, the research on connectivism has been limited to studying online environments. Based on this lack of literature, recommendations for connectivism research also include further study in face-to-face modalities. Future researchers could study the perspectives of students or administrators or collect data from a sample that includes instructors, students, and administrative personnel to provide a holistic perspective. As I found that these characteristics exist and impact learning in adult courses, researchers could possibly measure these characteristics individually in face-to-face or hybrid settings similar to Mackness et al.'s (2010) study on MOOCs.

While I focused on instructors teaching business courses, future researchers can study connectivism in other disciplines or across multiple disciplines. As campuses must prepare for the influx of adult learners in the near future, research that advances strategies

based on connectivism could prove valuable. Intentional use of the characteristics of connectivism would also garner possible research of the development and implementation of strategies, programmatic evaluations, and case studies. This work does not have to be regulated to the study of adult learners or specific learning modalities, as connectivism may also add value for younger students.

Lastly, the use of IPA to view the data for the question of how these characteristics impact learning in the participants' courses proved valuable. Although I was mindful not to color the data through the lens of my experience, the ability to relate my instruction of adult learners helped me clearly see the connections each participant was making among the characteristics of connectivism, their courses, and with each other. For example, the viewpoint of teaching strategy emerged as I questioned the reporting of specific strategies the participants used in their courses versus the need for best practices in developing connectivist-based courses for adult learners. In reviewing the interviews and transcripts, it was clear that each of the participants provided insight into not just how connectivism impacted learning in their courses but provided steps that could be replicated in similar settings. This insight is valuable to the practice of adult learning and was shared regardless of a lack of thematic support. I recommend this approach to any researcher who has expertise in the field being studied.

Implications for Positive Social Change

In discussing implications for positive social change it must first be referenced this study speaks to the current experiences of adult educators, and the impact of the current strategies used in their classrooms. The findings of this study link the practices of

these educators to the principles of connectivism. Viewing the characteristics of connectivism through the lens of andragogy provides valuable insight into how autonomy, openness, diversity and interactivity/connectedness could potentially be augmented to create enriching experiences in adult classrooms. As one of the few studies currently available, it may be useful to faculty and administrators of adult focused higher education programs needing to develop strategies incorporating andragogical strategies with new learning technologies. With the population of adult students being projected to continually increase, administrators and instructors could look to connectivism as a means of merging proven adult practices with updated technology based resources regardless of course delivery method.

This study also serves to create a linkage between connectivism and frameworks that are currently used in adult higher education. Some of the participants in this study spoke to andragogy as a principle that guided the development of their courses, while others spoke to self-direction as being vital for success in their courses. What is clear from the findings of this study is that connectivism shares a synergy with proven frameworks in adult education such as andragogy. The opportunity exists to exploit this synergic relationship in order to develop a new framework that could serve as an update to the andragogical perspective by incorporating the technology of today in order to further develop the adult learning experience.

Much of the research on connectivism centers on the debate of its validity as a theory of learning. While this study does not take a position in that discussion, it findings did confirm the existence of connectivism in adult focused business courses and the

impact these characteristics have in learning settings. This impact should be studied in more detail, and findings from this work can be used to further develop effective strategies for teaching and learning across student demographics regardless of connectivism's theoretical standing. Although additional studies are required to confirm and extend these findings, this study has laid the groundwork to move the discussion forward.

Conclusion

The key findings of this study speak to the experiences of adult educators and the impact of the current strategies used in their classrooms. Viewing the characteristics of connectivism through the lens of andragogy provides valuable insight into how autonomy, openness, diversity and interactivity/connectedness could potentially be augmented to create enriching experiences in adult classrooms. As one of the few studies currently available, it may be useful to faculty and administrators of adult-focused higher education programs needing to develop strategies incorporating andragogical strategies with new learning technologies. With the population of adult students being projected to continually increase, administrators and instructors could look to connectivism as a means of merging proven adult practices with updated technology-based resources, regardless of course delivery method.

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Appendix A: Interview Questions

1. Can you describe what understanding you have of connectivism?

   Possible Probes

   a. Would you like me to provide you with insight additional on connectivism?

   b. Tell me about how you design and teach your course?

2. Definitions of the characteristics of connectivism (autonomy, diversity, openness and connectedness) were sent to you when you agreed to participate in this study. Based on your understanding of these terms, do these characteristics exist in any of your courses? If so, in what ways?

3. Tell me about a specific instance of autonomy/diversity/openness/connectedness that has occurred in one of your courses.

   Possible Probes

   a. Can you give examples of specific ways you encourage/foster/support autonomy/diversity/openness/connectedness in your courses?

4. Do you think that the characteristics of connectivism interact with each other? If so in what ways?

5. How do you feel the characteristics of connectivism impact the learning in any of your course?

   Possible Probes

    a.   Can you think of specific ways

        autonomy/diversity/openness/connectedness affect the learning in any of

        your courses?

6. Can you describe the order in which the characteristics of connectivism typically

    occur in your courses?

7. Can you think of any instances in which the characteristics of connectivism

    played out differently in your course? If so can please describe how they occurred

    in that case.

    Possible Probes

        a.   Why do you think the characteristics played out differently in this case?