THE RIGHT MIX: A SINGLE CASE STUDY INTO A BLENDED LEARNING PROGRAM AT TOBRIKAY CORPORATION

by

Angela M. Andrews

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

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ABSTRACT

The purpose of this qualitative case study was to explore the perceptions and experiences of learners and subject matter experts (SMEs) at Tobrikay Corporation (pseudonym) regarding software systems training in a blended learning environment. The following question was the focus of this case study: What are the learners and SMEs' experiences with the adoption of blended learning at Tobrikay Corporation? The theory guiding this study was Knowles' (1989) theory on andragogy. In order to connect with adults, a link must be established between the key concepts being taught and their relevance to the intended recipient. The study was further grounded in Moore's (1993) transactional distance theory, which proposes distance occurs between the following: learner-learner, learner-instructor, and learner-subject matter. A limited amount of research on blended learning in the corporate environment exists. The design was an instrumental case study used to seek an answer to a question to understand casual connections. This case study explored 15 participants who are current users and SMEs of a blended training program at Tobrikay Corporation in the Midwest. Data were collected through semi-structured interviews, observations, focus groups, and corporate artifacts. Learners and SMEs faced transactional distance in the blended learning program. The fulcrum of this study was to identify the effective and ineffective methods of the blended program. Eliminating the ineffective methods of blended learning would save the learners resources, SME resources, and Tobrikay Corporation Resources.

Keywords: blended learning, corporate learning, distance learning, equivalency, on-the-job training.

Copyright Page

Dedication

It is with the deepest gratitude and love that I dedicate this dissertation to my family. It is through their sacrifices that allowed me to accomplish this achievement. This dissertation is dedicated to my children, Tony Alexander and Brittney Marie, who have endured many nights without me or experienced a very tired momma from staying up late. They were always there pushing me to continue, believing in me, even when I couldn't believe in myself. I love you to the moon and back, do well and succeed! My husband, who sacrificed nights without me. Brad you have been my rock. I would like to make a special dedication to my mother and father, who showed me more love than I ever knew was possible. I love you.

I can do all things through Christ which strengthen me. (Philippians 4:13, King James Version). He gave me strength when I was weak.

Acknowledgments

I am grateful to everyone that has helped me in my journey to earn my doctorate. First and foremost, Dr. Daniel Baer, my committee chairman, you have been my Sherpa on this long and arduous journey. The support you showed me through my dissertation and while I had cancer meant more to me than you will ever know. Thank you will never suffice. I would like to thank my committee members and research consultant, Dr. Orlando Lobaina, Dr. Kevin Struble, and Dr. James Swezey. I would like to acknowledge Dr. Deanna Keith for believing in me. Without you I never would have applied for the doctorate program. I would like to thank my parents for always believing in and supporting me. I could not have succeeded without my husband putting up with my long nights and weekends writing. My children, they never let me quit, they were my cheerleaders and enforcers. Thank you for enduring my long dissertation stories! I would not be here without Dr. Summer Dewdney, at Rush University, who treated me for cancer while I wrote my dissertation. Above all, I thank God every day for giving me another day.

> Let me tell you something you already know. The world ain't all sunshine and rainbows. It's a very mean and nasty place, and I don't care how tough you are, it will beat you to your knees and keep you there permanently if you let it. You, me, or nobody is gonna hit as hard as life. But it ain't about how hard you hit. It's about how hard you can get hit and keep moving forward; how much you can take and keep moving forward. That's how winning is done! (Stallone, Conti, & Eskew, 2006).

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List of Abbreviations

Association for Talent Development (ATD)

Graphical User Interface (GUI)

Information Communication Technology (ICT)

Institutional Review Board (IRB)

Return on Investment (ROI)

Subject Matter Expert (SME)

Traditional Face-to-Face Learner (TF2F)

CHAPTER ONE: INTRODUCTION

Overview

Given the importance of rapid development and the proliferation of blended learning courses, as well as the lack of research on this mode of education, the focus of this single instrumental case study is to examine learners and subject matter experts' (SMEs) experiences at a corporation in order to explore the specific mixture of blended learning utilized. Corporations supply goods and services to customers in exchange for cash or cash equivalent, while trying to achieve a profit, the basic accounting equation (Spiceland, Thomas, & Hermann, 2016). There are two ways to increase profit in a corporation: by reducing costs or increasing sales. Corporations attempt to do more with less in order to maintain profits. One area that is often targeted for cost cutting measures is training. Training is often seen as a variable cost and not directly related to organizational outcomes (Aragon, Jimenez-Jimenez, & Sanz-Valle, 2014). Research has begun to emerge in the past ten years demonstrating the effectiveness of training upon organizational goals and objectives (Dhar, 2015; Esteban-Lloret, Aragon-Sanchex, & Carrasco-Hernandez, 2018; Hammer, Brockwood, Bodner, & Mohr, 2017; Noe, Hollenback, Gerhart, & Wright, 2017). As blended learning becomes more acceptable in academia, corporations are seizing on this opportunity in the efforts to reduce costs and increase profit (Heckman, Osterlund, & Saltz, 2015). Chapter 1 includes background information concerning the historical development of blended learning, including the social and theoretical contexts in which it developed, the motivation for this study, the problem statement and purpose for the research, as well as the significance of this research. In the subsequent sections, I present the research questions, research plan, and the limitations and delimitations of this study.

Background

Distance education is not a 20th-century concept. Distance education has evolved over several hundreds of years, leading us to the modern day of blended learning. Distance education as a concept has morphed depending on the context, researcher, time-frame and individual and with all the terms and phraseology, it can quickly become a confusing topic (Mubayrik, 2018). This confusion often arises from educators using the latest buzzwords when attempting to classify distance education (Aoki, 2012). Terms used by researchers, educators, and corporations to describe learning at a distance include *distance learning*, *web-based learning*, *hybrid learning*, *personalized learning*, *differentiated learning*, *mixed-mode*, *CBT* and *computer-based learning*, which are often used interchangeably. As technology changes, it fundamentally changes the definition of blended learning (Kentnor, 2015), because researchers define blended learning based on the mode used. For the purposes of this study, *blended learning* is defined as a pedagogical approach that evolved from distance education, and not from traditional face-to-face (TF2F) education (Aoki, 2012) using a combination of synchronous and asynchronous learning (Szeto & Cheng, 2016). Blended learning, can be simply defined as, a combination of synchronous and asynchronous learning. To understand the current state of blended learning, it is useful to take a look at how distance learning evolved.

Historical Context

The origins of distance education are contentious among researchers (Bonk & Graham, 2006; Olszewski-Kubilius & Corwith, 2011; Simonson, Smaldino, & Zvacek, 2015). The origin of distance education can be traced to biblical times, specifically Apostle Paul's teachings to Christians in the Letter to the Romans (Keegan, 2014). Apostle Paul taught via TF2F learning the teachings of salvation and supplemented his instruction through the letters in a distance

learning format (Benckendorff & Zehrer, 2017). Paul's method of distance learning was correspondence learning. Distance education as a practice continued this way until the 1700s, began the formal training of potential clergy as an established correspondence course (Adams & Olszewski-Kubilius, 2007). The first formalized distance education program began in the 1800s at the Silent University founded by Anna Ticknor for the purpose of women teaching women (Bergmann, 2001). The University of Chicago was the first to offer distance education widely, establishing the first program in which teachers and students were geographically separated in the late 1890s (Casey, 2008). Distance learning advancement and development coincides with the communication technology movement. Distance learning was not limited to religious and educational institutions, corporations learned it was needed as well. The first corporate training program created was distance learning. Corporate training was first established in the 1890s as a result of the Mine Safety Act (Watkinson, 1996), which required workers to pass a test created by the International Correspondence School in order to work in the mines. This era was known as the first generation of distance learning or the correspondence era, whereby instructors and learners were geographically separated, and learning was conducted asynchronously without any interactivity (Taylor, 2001). The learning material was mailed to each student. From a business perspective, the material was a variable cost because as the number of students increased, the cost to produce the course increased (Wang & Yang, 2001). The correspondence generation ended in 1960.

The second generation of distance learning was known as the multimedia era, which was very similar to the correspondence era but also included radio, television broadcasts, and standalone computer learning (Aoki, 2012). The second generation was much shorter than the first and only lasted approximately 25 years. Costs were still based on the number of students

enrolled. Learning was still asynchronous, and instructors and students were geographically separated.

The third generation of distance learning led to a fundamental shift in the mode of learning. Taylor (2001) divided this generation into two time periods 1985-1995 and 1995-2005. This generation, known as the tele-learning era, allowed for flexibility for students and importantly included audio and videoconferencing (Taylor, 2001). Taylor divided this generation into two time periods because the first time period was the advent of personal computing and the second was the arrival of internet learning. The costs of delivering the courses became variable and fixed. Courses were less dependent on the number of students enrolled in a program, establishing a fixed cost. For the first time, learning was accomplished synchronously outside of a TF2F classroom.

The fourth generation began in 2005 and is the present model. This generation introduced computer-mediated communication along with the integration of the Internet, which allow for learning to occur online (Taylor, 2001). Wang and Yang (2001) explained this resulted in a disruptive change as it addresses the lack of communication and interaction within online learning. Web 2.0, mobile learning, and other interactive technology are the defining characteristic of this generation. Learners now have the option to learn asynchronously, synchronously, or a combination of the two. This generation has resulted in what educators and researchers now refer to as blended learning. It also has led costs to shift from variable to fixed, taking advantage of economies of scale. Students could now take classes from anywhere in the world with internet access and learn.

Social Context

There are four main social contexts for learning: one (singular), one-to-one, one-to-many, and many-to-many (Paulsen, 1995). The social context of *learning for one* or *singular learning* refers to independent study, which was primarily the focus of the first and second generation of learning. Keegan (2014) described independent study as when the onus of learning belongs to the student. Independent study lacks the pressure from peers and lacks an instructor (Keegan, 2014). *One-to-one learning* refers to one student learning from one teacher. This style of learning is commonly referred to as mentoring or tutoring. It lacks peer pressure, as there is no interaction with other learners or peers. The TF2F learning model is a *one-to-many* relationship; there is one teacher and many students. In some cases, the TF2F learning model can also be *many-to-many* depending on the incorporation of additional models such as project-based learning or group learning. The many-to-many context is widely used in the digital age of learning, including by collaboration and sharing information online (Foroughi, 2015). Online learning may still incorporate one-to-many learning if the instructor designs it as such. Blended learning can also be one, one-to one, one-to-many, many-to-many, or a combination.

Corporate learning uses many of these social contexts. Employees are often given job aids and references to learn new material on their own; this is considered singular learning. There are other times when an employee will learn from a fellow employee, a supervisor, or take an online course; this constitutes one-to-one learning. In the employee–employee relationship, employees are learning key aspects of the job from their peers. The learning can be formal, such as processes or tasks, or informal such as corporate culture or how meetings operate. According to Little (2016), the three top corporate learning methods and influences are team collaboration, conversations and meetings, and manager support. Thus, one-to-one learning and many-to-many

learning are the top corporate learning methods. Informal learning has become the ubiquitous form of corporate learning (Ellinger, 2005; Little, 2016). The supervisor–employee relationship is critical in the work structure for promotions and advancements. There are also times when an employee is tasked with attending a course, which uses the one-to-many approach. The last social aspect is blended learning, where an employee may receive online training followed by in-person training.

Theoretical Context

The framework underpinning this study is Knowles' (1989) andragogy theory, which posits adults learn differently from children. Knowles (1989) established the shift from focusing on teaching to focusing on learning. He stated pedagogy is about learners learning what teachers teach in order to advance, adults what to understand a situation. Adults believe they are accountable for the direction of their lives, which creates different circumstances in which they learn when compared against children. The art and science of teaching children is known as pedagogy and is different from andragogy, the art and science of teaching adults. Knowles, Holton and Swanson (2015) explained andragogy is based on six assumptions that apply to adult learning circumstances:

1. The need to know. Adults need to understand how their learning applies to their lives before they begin to learn.
2. The learner's self-concept. Adults need independent learning and have a psychological resistance to a teacher imposing their will upon the learner.
3. The role of experience. Adults need to have their experience valued and respected.
4. Readiness to learn. Adults need to learn when they are approaching the next development stage in their life.

5. Orientation to learning. Adults want to learn things that will help them accomplish a goal or task.
6. Motivation. Adults are receptive to learning with external and internal motivating factors.

Andragogy shifts the focus from teaching to learning. In this context, teachers do not direct students. Rather, they facilitate learning (Knowles, 1980). Knowles (1980) suggested adults are lifelong learners. In a world of continuous change, adult learners need support to self-direct their learning. This requires appropriate resources to assist them. Although Knowles is credited for the theory of adult learning, these ideas were previously researched in the early 1900s by Thorndike and Sorenson (Knowles, Holton, & Swanson, 2015).

The study is also rooted in Moore's transactional distance theory and the current Zhang's scale of transactional distance, which refers to the distance that occurs in four instances: learner-learner, learner-instructor, learner-content, and learner-interface (Paul, Swart, Zhang, & MacLeod, 2015). Transactional distance is the obstacle learners must overcome in order to learn (Moore, 1973). Moore explained transactional distance is not a static variable, but relative and occurs in every course, regardless of traditional face-to-face or online learning. Moore (1993) wrote transactional distance is reduced through more dialog, less structure, and/or less learner autonomy. Reducing transactional distance leads to the idea that adult learners will learn more. The ultimate significance in this framework is to identify the transactional distance that occurs through learners or SMEs experience during the blended learning program. Viewing through this lens allows for an adjustment in the design of the program to reduce the distance on substantially both the SME and learner.

Situation to Self

My enthusiasm for leading this qualitative case study stemmed from the desire to explore the perceptions and experiences of software systems training in a blended learning environment for learners and SMEs at Tobrikay Corporation (pseudonym). My goal in conducting the study was to give a voice to both learners and SMEs in the corporate world. My passion for blended learning is both personal and professional. I have spent over 3,000 hours participating in adult education, some by choice, some required by my position or status, and some mandated by an organization. I have participated in some amazing programs, and I have participated in courses that I would have hoped would end early. I have been mandated by the government to take training in which my peers and I would race to see who could click through the e-learning courses the fastest. Consequently, nothing was learned. I have also participated in programs that had potential, yet floundered and failed, and I struggled as a result. Courses or programs that fall short of expectation have been disheartening as a student.

On a more personal level, blended learning is important to me due to my educational experience. I battled cancer for 2 years. Therefore, being able to accomplish my second master's degree in person was not feasible. My days were filled with chemotherapy, surgery, and radiation followed by weakness and sickness. For these reasons, I was not able to attend TF2F courses. A blended learning program was the only way I could obtain my degree. It allowed me to attend courses while accommodating my sickness and work schedule. I wondered if I was receiving an equivalent degree as those students who attended TF2F courses, but quickly learned in the practical application of my career, I had indeed earned a quality education.

Professionally, as an instructional systems designer, I have spent the greater part of 10 years designing blended learning programs for adults. I have also taught adult education courses

with the TF2F method as well as blended learning and online courses. As a business education consultant, I have encouraged companies and the government to implement blended learning as a cost-savings measure. I earned my Master's of Business Administration degree by the TF2F method and a Master's in Education online. My doctoral program has been a blended learning program—a program I will eternally treasure.

Philosophical Assumptions

In this case study, I utilized an interpretive framework composed of two assumptions, both epistemological and philosophical. The epistemological assumption was that observing participants in their surroundings would allow me to understand the premise of the phenomena better (Creswell, 2013). The other assumption, from a philosophical standpoint, was that this study would allow me to assimilate with the students and SMEs to learn of their experiences in the blended learning environment in an attempt to truly "know what they know" (Creswell, 2013, p. 20). The blended learning program allowed me to observe the learners as they learned, the actions and reactions they experienced as learners, and capture and report their experiences.

I further adopted an ontological lens, accepting that each participant would have his/her own view of reality based on his/her experience (Creswell, 2013). Each learner brought a set of beliefs, experiences, and opinions about learning. Learners may have assumed online learning was effective or ineffective based on what they had experienced in the past. It was important to understand their perceptions and how they affected the learning experience. My worldview stemmed from the perspective of social constructivism. This guided my efforts to understand the world in which I work, as well as the decision to rely on participants' views and experiences of the blended learning environment (Creswell, 2013).

Problem Statement

Business corporations struggle to find a balance between the cost of educating and the quality of education (Gandomani, Zulzalil, Ghani, Sultan, & Parizi, 2015). In this case study, I sought to identify factors that affect learners' perceptions of their learning in a blended environment and to isolate emerging themes and trends from the environment. Blended learning is a method of learning that needs to be examined thoroughly. Corporate learning contains significant knowledge gaps in blended learning (Mubayrik, 2018). The combinations and possibilities that compose blended learning are numerous, rendering some combinations effective and others ineffective (Cheng & Chau, 2016). Some researchers have claimed that blended learning is equivalent to TF2F learning (Chi-Cheng, Kuen-Ming, Liang, Ju-Shih, Yu-Sheng, 2014; Demirer & Sahin, 2013). Other researchers have stated it is not as effective as TF2F learning (Jokined & Mikkonen, 2013; Park, 2016; Xu & Jaggars, 2013), and still others have said blended learning exceeds the outcomes of TF2F learning (Allen & Seaman, 2013; Spanjers, Koinings, Leppink, Verstegen, Czabanocksa, & vanMorrienboer, 2015; Stack, 2015; Stockwell, Stockwell, Cennamo, & Jiang, 2015; Tseng & Walsh, 2016). Notably, the researchers who have found blended learning is not effective have examined a combination of blended learning, however the researchers generalize blended learning as ineffective as opposed to the combination of blended learning being ineffective. Additionally, few researchers have demonstrated an in-depth examination of blended learning programs in the corporate environment. Less than 10% of all research on blended learning has included the perceptions of students engaged in blended learning; of studies that have, the majority has focused on the university level (Halverson, Graham, Spring, Drysdale, & Henrie, 2014). The research figures

are 5 years old, but more recent statistics do not exist. There is a gap in the literature in regards to blended learning at the corporate level.

Blended learning programs face many challenges. Instructors are often unsure how to implement or execute a blended learning program (Avidov-Ungar & Magen-Nagar, 2014; Freeman & Tremblay, 2013). To be effective, instructors must transform their teaching for blended learning (Szeto & Cheng, 2016). Instructors need to work with an instructional designer in order to create an effective blended learning program (Brown, 2016). Instructors cannot simply take a TF2F course and blend it without adjusting the course for the online component. Notably, 71% of university students reported in a study learning online is equal to or better than TF2F learning (Allen & Seaman, 2015). The problem is that research has demonstrated overall blended learning produces equivalent learning outcomes; however, learners and SMEs are continuously dissatisfied with the blended learning program at Tobrikay Corporation. The dissatisfaction has been demonstrated by learners not being prepared when a SME teaches, complaints to the SMEs, and complaints from the SMEs.

Purpose Statement

The purpose of this qualitative case study was to explore the perceptions and experiences of learners and SMEs at Tobrikay Corporation regarding software systems training in a blended learning environment. The blended learning program consists of live virtual or in-person synchronous and asynchronous training with references. Blended learning is generally defined as combining synchronous and asynchronous learning requiring both an instructor and learner (Bonk & Graham, 2006; Szeto & Cheng, 2016). Traditional face-to-face learning is synchronous, in-person learning, meaning the learner and teacher are in the same location. The theory guiding this study was Knowles' (1989) theory of andragogy, which posits adults learn differently from

children. In order to connect with adults, key concepts must be met (Knowles, 1989). The study was further grounded in Moore's transactional distance theory (1993), that is, barriers occur during the learning process between learner-learner, learner-instructor, and learner-content; including Zhang's (2003) addition of learner-interface barriers to learning.

Significance of the Study

According to Hilliard (2015), people involved in education globally are pursuing methods to employ software programs to improve training. Corporations seek ways to reduce costs and increase profit, and often struggle to find a balance between the cost and quality of education. Blended learning has been shown to lower costs (Kannan & Narayanan, 2015) and provide greater student satisfaction (Batalla-Busquets & Pacheco-Bernal, 2013; Ho, Nakamori, Ho, & Lim, 2014), especially when compared to TF2F learners, and to produce similar competencies (Ilic, Hart, Fiddes, Misso, & Villaneuva, 2013). The stakeholders involved in corporate education include instructional designers, SMEs, instructors, students, and the corporation itself. Students may find this research valuable as they choose between TF2F programs, e-learning, or blended learning programs. Adult learner desire efficient training programs to maximize their time and efforts, especially while they are working. Subject matter experts, who are oftentimes the instructors, may benefit from this research, as it provides insight into the emotional and learning experiences of the students. This information provides insight into how students learn and their overall experience of the blended learning program. Education consultants and departments may find this research helpful for coaching companies and recommending training solutions. The findings may also assist corporations in deciding where monies should be allocated and how companies may spend more efficiently, reducing costs and increasing profits. Curriculum designers may design better courses as a result of these findings. Finally, this

research contributes to the overall scholarly knowledge on the subject of both blended and corporate learning, and shares the voices of learners in the development of corporate blended learning programs. This research further adds to the limited body of knowledge on corporate education and the analysis of a specific mix of blended learning.

Research Questions

There was a known opportunity to explore the blended learning program in Tobrikay Corporation as learners of the program were not satisfied with the training program and trainers were frustrated with the lack of knowledge among the learners during the training program. It was critical to discover why the learners and SMEs were not satisfied with the blended learning at Tobrikay Corporation, as income revenue determines the performance of the company and the Education Department. This study provides insight into corporate education programs and adds to the body of literature on corporate blended learning programs. This case study posed the following central question: What have the learners and SMEs experienced in the adoption of blended learning at Tobrikay Corporation? Additional sub-questions included:

1. What transactional distance have the learners and SMEs experienced?
2. How do learners and SMEs perceive each other in the teacher–student relationship?
3. How do learners and SMEs perceive the equivalency of the blended learning program compared to TF2F learning?

Regarding RQ1, Moore's (1993) equivalency theory posits learners and teachers—in this case, SMEs—experience some type of transactional distance. Transactional distance occurs whether learners are face-to-face with the instructors or at a distance. Moore concluded that regardless of distance, whether a TF2F course or blended learning course, the end results should be equivalent.

This research is important as little research has explored corporate learning, particularly in studies on blended learning. The critical knowledge needed to build upon previous research was to document the different combinations of blended learning in order to deduce which combinations are effective and which combinations are ineffective, as opposed to lumping blended learning into one overarching category.

Definitions

1. *Andragogy* – The art and science of adult learning (Knowles et al., 2015).
2. *Asynchronous learning* – A learning event whereby the interaction is delayed by time (Hrastinski, 2008).
3. *Formal learning* – The acquisition or enhancement of knowledge or skills in a planned, structured setting or program (Malcolm, Hodkinson, & Colley, 2003).
4. *Informal learning* – The acquisition or enhancement of knowledge or skills through everyday activities (Malcolm et al., 2003).
5. *Instructional design* – A systematic process for developing training or education in a methodical manner (Gustafson & Branch, 2002).
6. *Pedagogy* – The art and science of teaching children (Knowles et al., 2015).
7. *Synchronous learning* – A learning event whereby the interaction takes place at the same time, regardless of geographic location (Hrastinski, 2008).
8. *Traditional face-to-face* (TF2F) *learning* – Instruction provided directly to the learner (Hassan, Abiddin, & Yew, 2014).

Summary

The term blended learning will continue to change as technology changes. Blended learning has a rich historical context dating to biblical times. Blended learning continues to

evolve as technology evolves. Corporations are evolving with training and utilizing blended learning. Specific combinations and methods of blended learning must be explored in the corporate learning environment. Corporate learning is a multi-billion dollar industry with very little research to support the effectiveness or efficiency of training. As many corporations are currently struggling to stay afloat, decision makers must decide the balance between the cost of educating versus the quality of education, and how to allocate resources. There is very limited research on blended learning and even less examining the corporate realm. In this case study, I explored learners and SMEs' perceptions and experiences in the blended learning environment of software systems training at Tobrikay Corporation. I aimed to discover factors affecting participants' perceptions and to isolate emerging themes and trends in the corporate environment.

CHAPTER TWO: LITERATURE REVIEW

Overview

Blended learning and distance learning are on the rise in colleges and in the business sector. Over one quarter of college students take at least one online class each year, equating to over 5 million adults, a figure rising annually (U.S. Department of Education, National Centre for Education Statistics, 2016). Almost half of the workforce takes training online (Association for Talent Development [ATD], 2016). Simultaneously, there is also an increase in blended learning (Kelly, 2017). This approach does not strictly adhere to the traditional versus online dichotomy. Rather, it integrates online learning in combination with TF2F learning.

For blended learning to be effective in the corporate sector, from a business perspective, it needs to save time, money, and resources (Means, Toyama, Murphy, & Baki, 2013). Blended learning saves organizations money. In the corporate sector, companies are on the hunt to cut costs and maximize profits while minimizing losses. Corporate training is typically the first place organizations look to reduce costs. One way corporations may cut costs is by evolving from TF2F training toward a blended learning platform. Blended learning is less expensive than TF2F training as it can capitalize on the technology aspect of training (Means et al., 2013). It also offers flexibility, convenience, and accessibility for students to learn almost anytime and anywhere. These factors, teamed with developments in educational technology, have propelled the use of blended learning (Tang & Chaw, 2016) and made it more convenient for employees. Blended learning is needed in the corporate sector to manage skyrocketing costs, increase productivity, and stay competitive; however, determining the right mix of blended learning is often a challenge for corporations (Mubayrik, 2018) due to the lack of research.

Chapter 2 is structured in the following format. First, I present the theoretical framework underlying the study. I then review the literature on blended learning, Web 2.0 learning, and the positive and negative aspects of blended learning. Finally, I discuss corporate learning, followed by general conclusions reached from the literature review.

Theoretical Framework

This study is based on several theories: adult learning theory or andragogy (Knowles, 1980), equivalency theory (Simmonson, 1999), and the theory of transactional distance (Moore, 1993). I describe these theories below.

Andragogy

A generally accepted definition of *learning* is a permanent change in behavior resulting from practice or performance (Driscoll, 2013; Gagne & Briggs, 1974). Knowles is accredited with the theory of adult learning; however, it was researched several decades before by Thorndike and Sorenson from the American Association for Adult Education in the early 1900s (Knowles et al., 2015). Knowles et al. (2015) stated adults have the self-concept of being accountable and capable of directing their lives. Knowles et al. believed *pedagogy*, the art and science of teaching children is an entirely different model from *andragogy*, the art and science of teaching adults. The premise of andragogy shifts the focus from teaching to learning; from the teacher directing students to facilitating learners (Knowles, 1980). Knowles (1980) believed adults are lifelong learners. In a world of continuous change, adult learners need support for self-direction and resources to assist them.

The term *adult* has different definitions and connotations from biological, legal, and psychological standpoints. Knowles et al. (2015) posited six assumptions that must be met for adult learning to occur. The first assumption is the need to know: adults need to understand the

reason for learning something. In contrast, children accept they need to know what teachers teach in order to progress to the next level. The second assumption pertains to adult autonomy: adults are accountable for their decisions, where children are typically more dependent upon the teacher. The third assumption is the role of the learner's experiences: adults enter the learning situation with a lifetime of experiences, and these experiences must be valued as adults place their net worth on their experiences; children are more likely to rely on the experience of the teacher (Hatfield, Burchinal, Pianta, & Sideris, 2016). The fourth assumption is the readiness to learn: adults want to learn what they can apply the learning to their environment; children are more likely to accept they have to learn to achieve the next level (Hatfield et al., 2016). The fifth assumption is orientation to learning: adults want to learn what will assist them in their environment; children are more likely to accept the subject matter that a teacher provides. The last and sixth assumption is motivation: adults are more motivated by internal motivators such as self-esteem and job satisfaction, in contrast to children, who want to get good grades and seek approval from teachers and family, which are external motivators (Knowles et al., 2015). Children learn different from adults; this acknowledgment is the foundation on which this study was based. The corresponding assumptions provided the framework to explore the learners and SMEs' opinions regarding blended learning at Tobrikay Corporation.

Equivalency Theory

During the third generation of distance learning, this form of learning was simply thought of as another teaching method. Scholars believed the same theories that explained learning in a TF2F learning environment would suffice to explain distance learning. Keegan (1986) challenged this assumption, identifying the need for a specific theory about learning in the context of distance education to strengthen the field. This lead to the establishment of the

equivalency theory. Simonson (1999) concurred with Keegan, highlighting the instructional methods used to design a course are critical to learning, and learning should not be compromised due to ineffective instructional methods, this led to the development of the equivalency theory. This theory was furthered by Dell, Low, and Wilker (2010) stated to arrive at equivalent outcomes in TF2F learning or blended learning, one must focus on the instructional strategies employed.

Many researchers have advanced the theory of distance education. For example, Wedemeyer (1971) examined independent study; Moore (1993) developed the concept of transactional distance; and Simonson (1999) posited equivalency theory. Blended learning, which includes distance learning, it is a different field of study than TF2F learning. Simonson argued distance learning with the implementation of technology, regardless of synchronous or asynchronous communication, is fundamentally different than TF2F learning. This means taking a TF2F course and employing it online without altering it will produce an unsuccessful course or unequivocal outcomes. To determine if blended learning courses can be equivalent to TF2F courses, the theory of equivalency (Simonson, 1999) is critical. An equivalent outcome means a student learning online or in a blended learning environment will acquire similar knowledge to a student in a TF2F course.

Equivalency theory advocates that regardless of geographical location, learners should have equivalent learning experiences and produce equivalent outcomes (Simonson, 1999). Equivalency theory recommends altering the learning methods in order to accommodate students. This theory is predicated on the notion that learning is adapted to the learner regardless of the environment (Simonson, 1999). Adapting learning to the learner supports Knowles' theory of andragogy (1980) that learning is not a one-size-fits-all approach and should be tailored to the

adult learner. Research has demonstrated overall TF2F learning and blended learning can produce equivalent outcomes (Murray, Perez, Geist, & Hedrick, 2012; Said, Kirgis, Verkamp, & Johnson, 2015). The theory does not exist without dissenting opinions (Xu, 2013; Xu & Jaggars, 2014). It is important to discover whether learners perceive blended learning and TF2F learning result in equivalent learning. The learners attending the blended learning program at Tobrikay Corporation make recommedations to their management based on the learner's perception of the program. This theoretical idea is key to developing a blended learning program that will be of benefit to both learners and SMEs. A study by Canning, Muenks, Green, and Murphy (2019) consisted of 150 instructors and over 15,000 students revealed a relationship between instructor perceptions about a learner and the performance of the learner. Learners perception of learning also affect their learning experience Pi, Hong, Yang, 2017).

Theory of Transactional Distance

The theory of transactional distance is essential in the study of learners and SMEs' perceptions of blended learning programs. Moore believed distance education lacked the understanding of macro factors which are critical to the theory of distance education (Moore, 1993). Moore (1993) believed the field of education lacked psychological and communications gap that occur in learning. The theory of transactional distance refers to the separation of teacher and learner—the space between the two represents a psychological and communications gap that must be overcome (Moore, 2003). Moore (2003) explained transactional distance is not a static variable but is relative, and occurs in every course regardless of learning format. Moore stated distance results from three factors in the learning environment: dialogue, structure, and learner autonomy. The distance occurs between student-student, student-content, and between student-teacher. Moore (2003) stated *dialogue* is the interactions that occur among learners and between

learner and teacher; *structure* refers to how the course is designed, the learning methods, teaching strategies and the flexibility of the course; and *learner autonomy* refers to what degree the learner has control or directs the learning experience (Moore, 2003).

Transactional distance is reduced through more dialogue, less structure, and less learner autonomy. Reducing transactional distance highlights the idea that learners desire interaction whether they are taking online courses or TF2F courses; also, learners do not want didactic instruction. Blended learning is valuable as it blends the best from both worlds (Dron, 2007). Yilmaz and Keser (2017) explored different ways to reduce transactional distance among students and found synchronous learning environments significantly reduce transactional distance in online learning. The authors further discerned the more metacognitive support a learner receives online, the more transactional distance is reduced.

Zhang (2003) created a scale based on Moore's theory of transactional distance (1993), which measures four categories of distance during instruction: instructor-student, student-student, student-content, and student-interface. Instructor-student distance occurs in a TF2F course by something off-putting the instructor says that causes a student to shut down. Instructor-student distance can be created in an online course if an instructor does not respond quickly to a student. Student-student distance can develop from conflicts between personalities in the classroom or online by misinterpreting a comment. Student-content distance can be observed if a text is written at a higher level than the student can understand or directions are not easily discernable online or in class. Student-interface distance occurred during the actual use of the software, internet or technological tool that is being used in teaching. This research lends to the idea that synchronous learning combined with asynchronous learning can reduce transactional distance. The ultimate significance of the transactional distance framework is to identify the

transactional distance that occurs through learners or SMEs' experiences during the blended learning program in this study. This lens allows for an adjustment in the design of the blended learning program at Tobrikay Corporation to reduce the distance experiences substantially for both the SME and the learner.

Review of the Literature

Blended Learning

No generally accepted definition for blended learning exists among academics and practitioners (Liu et al., 2016). Some researchers believe the term *blended learning* evolved from *hybrid learning*, which is still used interchangeably in some cases (Yamagata-Lynch, 2014). Other researchers have defined blended learning as a combination of TF2F and online instruction (Poon, 2013; Yamagata-Lynch, 2014); multiple instructional methods (Oh & Park, 2009; Tayebinik & Puteh, 2012); or multiple instructional modalities (Kim, 2013). Blended learning is thus convoluted due to the array of blending possibilities. In an effort to create a standardized definition for blended learning, Allen and Seaman (2015) suggested blended learning should include between 30–79% online learning and the rest, TF2F classes. Even with this quantitative definition, the type of online interactions is not qualified. Blended learning allows for the personalization of learning to the individual learner. However, it is not a panacea approach; implementing blended learning for the sake of implementing will not guarantee learning success.

One reason for the lack of consensus in the definition of blended learning is that as technology evolves, it has required the definition and instructional methods to evolve as well. Blended learning may consist of a TF2F course with online resources, which is partially face-to-face and partially online with discussion boards; or it may be a virtual session that is both online synchronously but not TF2F. Tang and Chaw (2016) stated online technology should

complement TF2F learning by giving students flexibility. As such, when educators or researchers refer to or investigate blended learning, they must consider the specific type or combination of blended learning (i.e., methodology, approach, pedagogy) utilized (Driscoll, 2002).

Some researchers feel there is almost no value in retaining the phrase *blended learning* as it is understood by researchers due to its ambiguity (Oliver & Trigwell, 2005). Blended learning may refer to structures including (but not limited to): a TF2F course with an online reference, online pre-coursework with TF2F training, online office hours with TF2F training, and online discussion boards with group work. The phrase blended learning is thus a misnomer. A better definition may be to refer to blended learning as *blended pedagogy* (Oliver & Trigwell, 2005). This would refer to the specific teaching and/or learning combinations employed, and allow the actual approach utilized to be validated and assessed for efficacy.

The blended learning environment involves integration of four dimensions: (a) space (physical/TF2F vs. distributed), (b) time (synchronous vs. asynchronous), (c) fidelity (rich interactive media vs. text), and (d) humanness (high human/no machine vs. no human/high machine; Graham, 2005). For example, a blended course may include TF2F students and online, synchronous, distributed interactions using Web 2.0 live chat applications. Fidelity may be managed using online multimedia presentation, videos, or remote guest speakers; and humanness may be enhanced by virtual communities or group messaging technologies.

For the purpose of this study, blended learning refers to the combination of TF2F classroom instruction and ubiquitous broadband Internet connectivity through a combination of synchronous and asynchronous programs and applications, including Web 2.0 technologies that enable social media interactions among teachers and students (Kale & Goh, 2014; Liu et al., 2016). The number of combinations and permutations of Internet-based programs and

applications that comprise the online portion of blended learning leaves significant room for interpretation and makes comparisons between blended learning research findings difficult. Rapidly changing technologies and applications create a quickly changing landscape with blended learning.

Web 2.0 technologies. Web 2.0 is broadly defined as "a platform spanning all connected devices…delivering software as a continually-updated service that gets better the more people use it" (O'Reilly, 2005, para.1). O'Reilly stated Web 2.0 technology develops deeper as more users participate and can evolve into a completely new technology. Web 2.0 technologies comprise an ever-evolving network, which is a meld of contributions. Web 2.0 technologies integrate along four dimensions: interactivity, real-time user control, social participation (sharing), and user-generated content (Bin-jomman & Al-Khattabi, 2018). Social media applications, such as Twitter, involve generation of content and collaboration among users that enables sharing opinions, posts, comments, assessments, discussions, and experiences. Other social media applications such as Wikipedia create content online with contributions from users that are not verified for accuracy.

Web 2.0 applications are easy to use and foster collaboration and social interaction naturally, increasing student engagement and classroom discussion participation (Kale & Goh, 2014). Web 2.0 tools may include social networks, blogs, v-blogs, RSS feeds, wikis, and podcasts—tools which constantly evolve. Web 2.0-enabled learning in a blended environment includes two or more of the following applications: peer-to-peer communication, collaboration, community, or digital convergence in the form of shared content (Lewis, Fretwell, Ryan, & Parham, 2013). Taken together, these applications increase student participation, engagement, and academic outcomes (Bin-jomman & Al-Khattabi, 2018). Traditional face-to-face learning

may integrate social networking applications as a tool for improving student engagement with content and other learners, thus rendering it blended learning. Web 2.0 technologies enable differentiated instruction and personalization for the learner by matching preferences and/or needs by tracking classroom behavior and tailoring instruction to learning preferences (Taylor, Vaughan, Ghani, Atas, & Fairbrother, 2018).

Web 2.0 technology has had a powerful effect in the educational field, leading it to be deemed a disruptive technology (Mutula, 2013), in the same way computers fundamentally changed access to education and introduced teaching to the masses while teachers and students were geographically separated. Thomas and Thomas (2012) stated Web 2.0 has introduced the greatest flexibility, immediacy, and reach to connect students to each other and to their instructors. De Rosa and Bogliolo (2016) argued Web 2.0 has created not only a shift in platforms, but also a shift in the mind of the learners and teachers.

Benefits of blended learning. Research has shown consistently that students prefer blended learning versus TF2F learning. Ilic et al. (2013) conducted a mixed-methods study of 61 students in medical school to discover if students could perform better on a particular course and to determine which mode the students preferred for this specific course. The researchers used the Berlin tool as a benchmark assessment and then qualitatively inquired on student perceptions. The researchers found no difference in competency between TF2F students and blended learning students. However, the blended learning students had a significantly higher rate of satisfaction.

In a similar study, Owston, York, and Murtha (2013) combined asynchronous online learning with a synchronous online chat tool and TF2F learning program, and found learners enjoyed the flexibility and online learning more than TF2F learning alone. The blended learning also had greater efficiency and flexibility, was more convenient to students, and had greater

learner engagement. The authors concluded while there may be no difference in performance between TF2F and blended learning students, blended learning students appeared to have improved attitudes and behaviors. Owston et al. (2013) also found that high achievers preferred blended learning to TF2F learning, compared to low achievers.

Baepler, Walker, and Drissen (2014) conducted a quantitative study to examine approximately 300 students who self-selected either TF2F learning or a blended learning format for a chemistry class for two separate courses. An end-of-course multiple choice assessment was conducted to compare the two groups' performance. The TF2F sample had classes in a large-capacity lecture hall three times a week; the blended learning students were in class once a week in an active learning environment to promote interaction and conducted the rest of the class asynchronously online. Baepler et al. found the blended learning classroom produced similar learning outcomes as the TF2F course; in one instance the blended learners outperformed the traditional learners. Baepler et al. (2014) partly contributed this to the change in learning environment during the TF2F portion of the class, which made learning more interactive and personalized the course to the student.

Students are more favorably inclined to enroll in blended learning courses due to perceived flexibility, support, idea sharing, interaction, and enhanced communication (Venkatesh, Croteau, & Rabah, 2014). In blended learning courses, both students and instructors perceived an increase in both the quality and quantity of meaningful interactions and an expectation for improved academic performance. Motivated students tend to prefer blended courses (Owston et al., 2013). Blended learning promotes peer-to-peer communication, increases engagement, and results in better mastery of course materials (Venkatesh et al., 2014). Blended learning students often find class discussions more interesting and appreciate the chance to

reflect before participating in classroom discussions. Blended learning students form social bonds with classmates more easily, feel safe to communicate ideas freely, and express feelings of coherence with group goals (Taylor et al., 2018). Blended coursework promotes socioemotional relationships and enables open and purposeful communication, with after-class survey results confirming student satisfaction and associated positive faculty ratings.

University professors using Web 2.0 in a blended classroom have reported students become more deeply involved in the knowledge production process and a blurring of roles between producers and consumers of content (Aucoin, 2014). The Web 2.0 culture of participation makes instructors and students co-creators of knowledge, leading some to refer to the process as Pedagogy 2.0. Web 2.0 technology enables learning in a blended environment through increased student engagement, autonomous study, reflection, and increased sense of shared community (Taylor et al., 2018). Educators have reported Web 2.0 technologies improve overall academic performance, faculty–student interactions, and administrative communication with students (Mao, 2014). While most researchers have found the benefits of Web 2.0 adoption outweigh the costs, Gingerich and Lineweaver (2014) have reported difficulties with adoption and implementation, primarily from the faculty perspective. To address the shortcomings of Web 2.0, faculty and school administrators have suggested three key items: (a) formal policy for social media use in coursework; (b) development of social media coursework integration best practices; and (c) training on institutional, personal, and legal issues related to social media in a blended environment (Gingerich & Lineweaver, 2014).

Russell (2001) aggregated 355 comparative research studies from 1928–1998, assessing TF2F learning and distance learning. The findings showed no significant difference in learner outcomes in the majority of studies, with only a handful of studies reporting a significant

difference. These findings did include both qualitative and quantitative research, but did not identify how learners feel or their experiences. The findings further excluded courses updated by instructors. Koch and McAdory (2012) discovered further research in education often lacks rigor and does not have a valid control group, meaning the instructors are different between the online and the blended learning course, or researchers compare two different courses. Additionally, the generic terms of blended learning versus traditional learning are used, without identifying the specific structures or approaches of the courses. As such, more specificity is needed to determine fully the efficacy of blended learning.

Learner outcomes are not the only way to compare distance learning and TF2F learning. Flexibility is the leading principle for students preferring blended learning over TF2F learning (Platt, Amber, & Yu, 2014; Poon, 2013). Students have also cited cost efficiency, convenience, and flexibility, as blending learning allows students to study when it is convenient for them and to accommodate work and family schedules. As such, students have better perceptions and overall experiences in blended learning, and make better use of technology. Deschacht and Goeman (2015) found blended learning results in greater student persistence and student performance. Students preferring blending learning feel they have more time to process and reflect upon information (Ho et al., 2014). Blended learning may also help to level the playing field in education. Learners who struggle with language have more time to think, reflect, and collate a response to online discussion boards (Fleck, 2012). Fleck (2012) asserted blended learning may level status and gender gaps in education. Most TF2F courses have student who may dominate the discussion or interaction in class; an online component allows all students to voice an opinion and allows for more meaningful contributions. It is logical to assert that learners

who enjoy a blended format will continue to take courses in a blended format if they are available.

Challenges of blended learning. Blended learning does have its fair share of challenges. Although Russell (2001) found no significant difference between online and TF2F courses, other researchers have found learners learn best in the classroom. For example, Xu and Jaggars (2014) found learning outcomes were poorer with online learning, with older and more experienced learners having a significantly smaller gap than younger, less experienced learners. Xu and Jaggars thus argued age is a factor in a blended learning program, implying older people may not be comfortable learning on a computer. However, the computer is only one mode of blended learning; as technology changes, so will blended learning.

Learners believe TF2F courses offer more immediate feedback and more opportunities to receive said feedback (Vaughan, 2014). This relates to the main issue identified in blended learning: course retention. Blended learning courses at the University level have a higher rate of dropouts than TF2F learning (Deschacht & Goeman, 2015). Examining the university context, Platt et al. (2014) and Koch and McAdory (2012) found learners perceived greater interaction with their peers and instructors in TF2F learning. Poon (2013) further reported feelings of isolation often occur among blended learners, and low participation impacts how students perceive a course. Not all students need a great amount of interaction with their peers or instructors (Koch & McAdory, 2012). The greater autonomy a learner has, the less feedback the learner needs, leading to less immediacy of feedback and a lower dropout rate.

Not everyone is on board with blended learning. Instructors' views may also negatively impact a course. Most instructors feel their presence in the classroom is what makes the difference in teaching (Koch & McAdory, 2012). Some teachers are not sure they will have a

similar impact online or in a blended format, possibly due to the relative newness of the structure. Even indirectly it has been reported in a qualitative study, Freeman and Tremblay (2013) found instructors were unsure how to modify a TF2F to a blended course, leading instructors to avoid making changes. Yet, some instructors fear Web 2.0 technology and Instructors often struggle with putting theory into practice when it comes to education. Instructors often spend time developing marquis lesson plans only to fail to connect to the students; this is the transactional distance Moore (1993) referred to in learning which needs to be reduced. Freeman and Trembley also found teachers felt they lost in-class teaching time to reviewing online activities, and there was too much extraneous information built in the online portion.

Despite the popularity of Web 2.0-related social media tools and applications, blended classroom adoption of social media applications has been slow (Daher, 2014). Dahr reported only 23.8% of university instructors reported the use of at least one of the following Web 2.0 technologies in their instruction: communication tools, collaborative tools and environments, online productivity and organization tools/applications, social networking tools, or media sharing tools (Daher, 2014). More than 80% of respondents reported the primary reason for the lack of adoption was the absence of training or support from university administration. Palaigeorgiou and Grammatikopoulo (2016) found the most prevalent obstacle was the teachers' perceptions, not only the teacher implementing the technology, but colleagues that opposed the implementation. Teachers can be shunned by their colleagues, thus isolating the instructors that need the most support (Palaigeorgiou & Grammatikopoulo, 2016). College faculty with Web 2.0 training and support integrated with specific classroom objectives and pedagogical implications are significantly more likely to adopt Web 2.0 applications in the classroom.

Instructors are overworked due to lesson planning, prepping, teaching and adding learning new technology or how to incorporate new technology can be very taxing. Hilliard (2015) maintained blended learning courses need to be updated within a three-year window to maintain the current standards in the industry in the corporate sector. Updating courses be is not limited to blended learning or online courses, they must also be updated for TF2F to ensure current standards and practices are taught. Lotrecchiano, McDonald, Lyons, Long, and Zajicek-Farber (2013) found, in their study of replacing some TF2F lessons with online interactive activities, instructors mainly objected to the time and effort required for the online component. The study demonstrated faculty were bogged down with additional work of responding to students online. The study also revealed that every lesson each week had to be redesigned, and the instructors themselves were solely responsible for the new content, without any incentive. Oh and Park (2009) studied 133 instructors and found lack of motivation from the instructors was due to the overwhelming workload. Access to technology does not appear to be a challenge, however the instructors' ability to integrate the technology is an issue (Ocak, 2011). Ocak (2011) indicated maintenance of the technology also appears to cause instructors some angst, citing they do not have enough time to teach, respond to emails, and update their online learning portion as well. Teachers pressed for time may avoid the design portion by having instructional designers create the course and offer assistance throughout the course. Blended learning will not work without a well-built and complete infrastructure in place to support instructors (Moskal, Dziuban, & Hartman, 2013), which requires added financial resources and access to support (Poon, 2013).

Instructors are not the only ones with challenges; learners face challenges as well. Mohammadyari and Singh (2015) explained students need to be digitally literate. They found learners who are digitally literate have a more manageable time learning the technology utilized

and are more proficient and capable. Szeto and Cheng (2016) explained in transactional distance, students have to adjust psychologically to a different form of teaching. Szeto and Cheng conducted a case study of a blended synchronous learning program, in which the instructor had a live class and a class who viewed and interacted remotely. The authors concluded the students in the remote location needed to adjust how they interacted with the teacher and peers. During some of the cooperative activities, the students felt the interaction was unnatural via video feed. However, the remote students appreciated the face-to-face communication with the instructor and peers. This supports the theory that transactional distance is a significant factor when learning remotely as well as for students in the same location.

Methods of Implementation

There are multiple ways to implement blended learning among different types of learners. *Gamification* is one means of implementing blended learning (Tan & Hew, 2016). Gamification is the process of incorporating game elements such as points, a leader board, and badges as a reward. Tan and Hew (2016) examined a three-day blended learning intervention conducted among two postgraduates split into control and experimental groups. The experimental group attended a course that incorporated gamification. The control group attended a course that reviewed the same material; however, the course was taught in a traditional format. The authors utilized data from pre- and posttest scores, engagement in the forum of discussion forum posts, and surveys and interviews. The findings showed the experimental group was more likely to be engaged with the material, as demonstrated in increased posting on the discussion forum (Tan & Hew, 2016). These students also responded in questionnaires that they felt engaged at rates higher than the control group. Given engagement is linked with learning retention, Tan and Hew (2016) concluded gamification is an innovative way to conduct a blended learning course.

Wiki-based collaborative learning is another means by which a blended learning program may be implemented among learners (Stoddart, Chan, & Liu, 2016). Numerous studies have indicated integrating wiki-based collaborative learning are engaging methods to encourage learner participation (Barajas & Frossard, 2018; Lutaaya, Cronje, & Aheto, 2018). This finding is consistent with Tan and Hew (2016), pointing to the utility of blended learning approaches in increasing student responses to the material. Organizations looking to implement blended learning may succeed in raising the level of engagement of their learners through both gamification and wiki-based collaborative writing approaches.

Positive Outcomes

A meta-analysis of multiple blended learning studies revealed blended learning is, overall, slightly more effective at instructing learners than traditional learning (Spanjers et al., 2015). This research took into account the feelings and perceptions of the learners in addition to performance. Learners react positively to blended learning thus impacting the effectiveness of the training. A blended learning approach is just as attractive to learners as a traditional learning approach. Blended learning should thus be considered by organizations looking to improve outcomes in learning.

To maximize the impact of positive outcomes, there need to be quizzes implemented into the blended learning environment (Spanjers et al., 2015). The use of quizzes moderates the relationship between blended learning environments and lesson attractiveness and effectiveness. Reissmann, Sierwald, Berger, and Heydecke (2015) further reported student satisfaction with the blended approach. In this case, the method of instruction was an e-learning module comprised of the three areas of fundamental principles, additional information, and learning objective tests. The modules integrated video recordings that included practical demonstrations accompanied by

additional background information (Reissmann et al., 2015). Reissmann et al. (2015) surveyed the participants and found a substantial increase in satisfaction between one year and the next. The level of satisfaction remained persistent over time. The findings of Spanjers et al. (2015) and Reissmann et al. (2015) thus suggest organizations may use blended learning to increase student satisfaction.

For budget conscious organizations, it should also be noted that there are potential financial savings to be had from the implementation of a blended learning environment (Maloney et al., 2015). Researchers conducted a randomized controlled trial comparing a blended learning environment with face-to-face learning. The traditional learning approach included 10 two-hour classes, while the blended approach included the same amount of face-to-face time along with both online and mobile learning activities. The researchers calculated the break-even point and then concluded that it cost 24% less to educate students to the same degree of competency as a traditional method using the blended approach (Maloney et al., 2015). When considering all participants, this equated to tens of thousands of dollars in savings. This illustrates the financial benefits that may result from using a blended learning method.

Pas, Waard, Ruijter, and van Dijk (2015) further identified persistent learning outcomes utilizing a blended learning approach for general practitioners. The researchers recruited 129 learners who participated in a blended learning course combining face-to-face meetings alongside e-coursework over a period of 12 months. The authors reported increases in knowledge and skills among those examined, as well as positive changes in attitude and intentions to make positive changes in behavior. The level of knowledge was correlated between objective testing measures and subjective surveys, with the results indicating perceptions of increased knowledge validated alongside the objective measures (Pas et al., 2015). The authors found the level of

increased skills and knowledge decline over 4 months, a significant improvement in both remained 4 months after the conclusion of the intervention (Pas et al., 2015). For organizations, this indicates blending learning may lead to persistent improvement in knowledge and skills.

In another study of blended learning involving screen casting, Auster (2015) reported positive academic outcomes as gauged by exam scores. The instructor used screen casting to introduce course concepts and theories and used classroom time to discuss those concepts, allowing for increased engagement between students and instructors during the classroom. Data collection included administering students to gain students' opinions as well as exam scores to judge academic outcomes. Auster concluded the use of blended coursework contributed positively to exam performance. Students also reported positive feelings regarding the blended coursework (Auster, 2015).

Baepler et al. (2014) compared traditional classrooms with an active learning classroom that reduced lectures and included recorded content posted online. This specific format allowed for more classroom engagement when classes were held, with the videos supplementing the lessons to ensure no necessary content was missed. The researchers found this format reduced the number of student faculty required to be present and improved student learning outcomes simultaneously (Baepler et al., 2014). The researchers found students were receptive to this format and had improved perceptions toward the class (Baepler et al., 2014).

In a similar study, Kiviniemi (2014) compared blended learning against traditional coursework among graduate-level students, analyzing data from exam scores and course point totals. The students were also asked to evaluate the blended learning approach. The findings showed a statistically significant increase in student performance using the blended learning intervention, and a medium effect size suggesting blended learning had a moderate impact on

improving student outcomes. Students also expressed positive feelings regarding the coursework, once again indicating a blended learning approach may produce both positive personal and academic outcomes. Thus, the findings regarding the benefits of blended learning are consistent between several recent studies (Auster, 2015; Baepler et al., 2014; Kiviniemi, 2014; Pas et al., 2015; Reissman et al. 2015; Spanjers et al., 2015).

Negative Outcomes

Several negative outcomes may result from blended learning (Deschacht & Goeman, 2015; Green & Whitburn, 2016; Kwak, Menezes, & Sherwood, 2014; Spanjers et al., 2015). Not all outcomes may be gauged according to learning outcomes, however. For example, the implementation of blended learning needs to be constructed carefully so as to avoid overloading learners (Green & Whitburn, 2016). In one study, the implementation of a blended learning gross anatomy course resulted in students reporting they felt an additional burden from having to engage in the blended learning coursework. The students reported the success of the blended learning coursework was reliant on the practical, face-to-face classes that accompanied the online portion (Green & Whitburn, 2016). Spanjers et al. (2015) also found that blended learning can be more demanding than traditional learning. This highlights the question of whether blended learning is always appropriate, even if it does produce the desired outcomes of course developers.

Additionally, blended learning may discourage persistence among adult learners (Deschacht & Goeman, 2015). In one study, researchers analyzed data drawn from an administrative set to determine the impact of a blended learning intervention among first-year business education learners. While there was a slight positive improvement in exam results, there was a negative outcome on persistence. Learners dropped out of the courses. This implies a

disconnect or transactional distance between the material and student engagement and learning. Such results again suggest that need for care in designing such a course.

There is also evidence that short-term learning results are different to cumulative learning drawn from across an entire course (Kwak et al., 2014). Researchers have identified two disparate findings in the related literature: (a) assessing student performance focused on short online courses, which produced both neutral and positive results; and (b) when cumulative learning was assessed across the entire course, there were negative outcomes from courses that integrated online learning. These findings highlight that organizations must further consider how they implement blended learning, and whether it is for short or lengthier learning periods.

When comparing traditional versus online and blended learning, some research appears to indicate that an online component is not beneficial to students (Alpert, Couch, & Harmon, 2016). A study of students randomly assigned across all three sections revealed outcomes for traditional versus online learning demonstrated online components actually led to a decline in learning outcomes. In the same study, the blended learning outcomes were better than the online-only outcomes, however they were not superior to a traditional classroom. These results suggest the development of online or blended courses, which may take time and resources, may not produce the desired learning outcomes the organization desires (Alpert et al., 2016). This research fails to cite the methods used in blended learning and renders blended learning as a whole as inadequate.

In another study, Callister and Love (2016) found the outcomes for online learning also failed to improve upon a traditional format. In this study, four classes were compared in which negotiation was taught in both a face-to-face and online format. The researchers concluded those who took the traditional format had superior learning outcomes to those who took the online component despite each course being designed as similarly as possible. Such results, alongside

those of Alpert et al. (2016), appear to contradict other findings that the use of a blended learning environment leads to improved outcomes for learners. Callister and Love (2016) declare blended learning ineffective. These types of studies need to identify the blended learning method used versus the type of learning desired and compare and contrast to determine if that combination of learning is ineffective.

Corporate Learning Organizations

Corporate learning organizations are complicated bodies that often have competing demands and a capricious audience. The ATD (2016) reported on average, training costs companies $1,252 and 33.5 hours of unbillable or lost revenue hours per employee per year, with a steady increase of 3–5% per every year surpassing the rate of inflation. Various factors affect this cost such as industry and size of the company. Software companies spend the most, educating at over $1500 per employee (Association Talent Development, 2016). Companies with fewer than 10,000 employees spend more than companies with greater than 10,000 employees. The difference in cost is attributable to companies being able to take advantage of the economies of scale. Ho (2016) further described the make-up of training courses: 51% of all corporate education are delivered in a TF2F format, 41% are technology based, and 8% are self-paced. The make-up of courses means that almost half of corporate education has moved to some form of distance learning. Learners are requesting more technology-based learning as demands on employees grow, and employees are encouraged to do more with less—only 27% of adult learning organizations expect an annual increase in budget (LinkedIn, 2017).

Adults learn in the workplace by way of adult educators. Knowles (1980) defined an *adult educator* as “one who has some responsibility for helping adults to learn” (p. 26). In this context, this may include chairmen, professional societies, leaders in industries, trade

associations, libraries, or commercial schools. Corporate education is a combination of both formal and informal learning programs. Formal training programs are established by the company; informal training is when the employee undergoes training to enhance their job skills independently. Employees conduct informal learning daily by learning through web searches, peer interactions, articles and blogs, and videos such as YouTube. Information is now at the employee's fingertips. Employees spend, on average, once a month reading books and taking online courses and only quarterly taking live classes (Tauber, Smolen, & Probst, 2016). Grenkie (2016) reported employees tend to learn from formal instruction if employees are learning a subject for the first time and when learners want to learn more. Employees require performance support, as they may struggle to recall information when information changes or during challenges. Employees have a desire to learn, with more than 60% reporting they would dedicate more time if they received professional credit (Grenkie, 2016). The statistics show employees spend, on average, 37 minutes per week on professional training and 3.3 hours conducting self-directed research (Tauber et al., 2016). Workers like to learn outside of their regular work hours and at places other than where they work. The top five complaints employees have regarding training are not enough time, not enough guidance or direction, not enough recognition or reward, not engaging enough, and training too hard to locate (Tauber et al., 2016, p. 7)

Corporations are focused on the bottom line—profit. If a company cannot make a profit, it will soon be out of business. There are many ways to analyze the success of a company, such as a balance sheet, profit and loss statement, cost benefit analysis, price to earnings ratio, client retention, and client acquisition. Return on investment (ROI) measures the efficiency of an investment. Corporations rely on efficiency of the ROI (Oliver & Trigwell, 2005). Corporate learning organizations are not exempt from measuring how efficient the learning organization is

compared to the investment, the amount of money a company spends. More and more organizations are finding ways to quantify the effectiveness of their training. Determining training effectiveness can be accomplished through Phillip's ROI, Kirkpatrick's evaluation, or the net promoter score. Over 50% of corporations have relied on qualitative feedback from learners who attend traditional face-to-face classes, positive feedback from line managers, and the satisfaction of attendees (LinkedIn, 2017, p. 13), which equates to Kirkpatrick's evaluation levels 1 and 3. Almost half of the companies, in the 2017 study, surveyed cite a limited budget as their greatest challenge (LinkedIn, 2017). Regardless of the measuring tool used, learning organizations utilize results to justify and solidify their needs and the need for larger budgets. Blended learning is an effective way to move corporations slowly and gradually from a TF2F learning environment to utilizing online components (Driscoll, 2002). Driscoll (2002) stated blended learning benefits the employee, the instructor, and the bottom line of the company.

Technology and cost. Technology changes at a continuous rate. According to Moore's law (1965), technologies improve exponentially with time, while Wright's (1936) hypothesis posits "cost decreases as a power law of cumulative production" (Nagy, Farmer, Bui, & Trancik, 2013, p. 1). This means as technology improves, the cost will decrease for the given technology. Moore's law and Wright's hypothesis have been validated many times over the years. Nagy et al. (2013) suggested they are one and the same, forecasting a change rate of 2.5% per year. Society can count on rapid changes with regard to technology and, with proper support, these challenges can be opportunities. In 1964, IBM established a commercial minicomputer with a standard eight-bit byte, which doubled to 16-bit byte the next year. In 1965, many companies were selling commercial minicomputers with an approximate cost at $32,000, worth approximately $135,000 in today's market (adjusted for inflation); today's average smartphone has 3 million times the

capacity with a price tag under $600 (Kose & Ozturk, 2014). Often, when a new technology emerges into the blended learning arena, it creates a lot of noise, but the technology itself does not solve the challenges in education—instead the pedagogy must lead in the design of education (Fleck, 2012). Coupling new technology with research on pedagogy will create better learning overall.

Stoltenkamp, Kabaka, and Braaf (2014) performed a qualitative case study to survey the experiences of 65 teachers in the design and delivery of a blended training program they took part in as students for professional development. The course was designed to help teachers overcome their resistance to information communication technology (ICT), as previously identified in classroom surveys. By the end of the program, each learner (teacher) was expected to create an online instructional course and present it to their students to enhance their ICT skills. The researchers (Stoltenkamp, Kabaka, & Braaf 2014) found this program was an effective way to train and support teachers to implement ICT in their classrooms. This form of experiential learning is very effective.

The right mix. Learning should never be a one-size-fits-all model; what is successful for one corporation may not work for the next. Dziuban, Hartman, Juge, Moskal, and Sorg (2005) believed e-learning was a disruptive innovation to the field of education. The researchers claimed that it did more than just bring convenience to education; it revolutionized the way education is implemented. This disruption has resulted in the creation of blended learning. With all the various attempts by researchers to define and explain blended learning, it is no wonder that it is hard to design, implement, and integrate a blended learning training program. A formal needs assessment may shed light on what is necessary for a given organization and allow learners to provide feedback on their thoughts and experiences. Blended learning allows an instructional

designer to customize learning for the individual. With so many blends possible, not all blends are effective (Koch & McAdory, 2012).

Hilliard (2015) found that even if learners do not learn best by blended learning, the mix of online and TF2F learning allows for the greatest number of learners to learn more successfully. Moskal et al. (2013) researched different blended learning models and found the University of Central Florida was the model to which blended learning should be compared. The researchers selected the University of Central Florida based on how it went about designing and implementing the program, not necessarily what they implemented. The school did a formal needs assessment and was able to address factors that most organizations overlook, such as: faculty and student goals; organizational capacity; whether the organization could sustain blended learning; support for students and staff; a reliable, robust, and dependable infrastructure; program evaluation; and policy development. The researchers concluded blended learning could be scaled based on a given organization if proper planning is done, the framework is well established, and all factors are considered. Blended learning should comprise a flawless assimilation of distance learning and TF2F learning. Unfortunately, many learning organizations implement an awkward blended learning program where gaps exist, and instructors are not sure how to instruct. Gawande (2015) further asserted research needs to concentrate on the instructional design of the blended learning program. Identifying and implementing an effective program will aid in learning and teaching.

Fleck (2012) recommended starting any blended learning course first with a face-to-face interaction, allowing time to socialize and connect with fellow peers. This establishes face-to-face interaction as the primary means and online communication as the secondary means for students. Learners appear to relate more when they first meet in person and carry the

relationships to the online forum. If learners interact first online, the comments are just from names and not people with whom they have formed relationships.

Summary

Almost half of the workforce undergoes online training (ATD, 2016). Corporations in today's society seek ways to reduce expenses and increase their profit margins to stay competitive. One way corporations can do this without losing any instructional integrity is by moving to a blended learning environment. Russell (2001) explored research encompassing 70 years, which showed there is no significant difference in online learning and TF2F learning; his continued research to the present day further supports these findings. Technology is undergoing constant rate of improvement, and the personal use of technology is increasing at a similar rate. Learners are using the computer and Internet far more than ever in the past. As such, instructors and instructional designers have to capture and seize the opportunity properly.

Research has shown consistently if the proper design is used, TF2F courses can produce equivalent training outcomes for a blended learning approach (Auster, 2015; Baepler et al., 2014; Kiviniemi, 2014; Pas et al., 2015; Reissman et al. 2015; Spanjers et al., 2015). Blended learning not only reduces the corporation's expenses but also reduces the amount of time employees need to be away from their job, thus producing a win-win situation for everyone (CGS, 2019). Reducing training costs may increase the profit margin for a corporation. Learners have consistently demonstrated they prefer blended learning to TF2F learning. Blended learning allows more customization and personalization for the students and allows the students more time to process instruction. Instructors need to understand better what types of learning students prefer and the types they excel in, and not use archaic learning methods because it is the way business has always been done.

There is also the level of engagement to consider when integrating a blended learning approach. Although positive academic outcomes have not always been identified in the literature, increased interest and engagement have been indicated. Increasing engagement and the ability to persist with coursework is a secondary benefit of integrating a blended learning program and helps to reduce the student-instructor and student-content transactional distance. This may help to increase the ability for learners to remain engaged with their material. Engaged learners remain attentive to critical information, which may lend itself to improved learning outcomes.

CHAPTER THREE: METHODS

Overview

The purpose of this qualitative case study was to explore the perceptions and experiences of learners and SMEs at Tobrikay Corporation regarding software systems training in a blended learning environment. By exploring the perceptions and experiences of the learners and SMEs, methods and strategies were identified to enhance blended learning in the corporate sector. Blended learning is not another method by which to educate; it is instead an opportunity to enrich the quality of learning and the experience of the learner. In this chapter, I discuss the design of the case study and the data collection procedures. I also provide in depth details regarding the participants, the setting, the researcher's role, data analysis, validity, and trustworthiness.

Design

Both qualitative and quantitative methods were valid and applicable for this research. I selected a qualitative study to utilize participants' voices through interviews, focus groups, and observations. The rationale for choosing a qualitative study over a quantitative study was to gain a clearer picture with in-depth interviews and questioning. Furthermore, I sought to explore a phenomenon (Stake, 1995). Quantitative studies have not always accurately portrayed learners' genuine reactions regarding a course. Oftentimes, instructor ratings have been skewed by factors such as course grades, frustration, or how much knowledge a learner feels they should have learned (Aryadoust, 2016; Cho, Baek, & Cho, 2015; DeFrain, 2016). Enjoying a training program and learning from a training program can be mutually exclusive. A qualitative study was the right type of study to conduct because of its investigational nature.

A case study is often used to explain a social phenomenon, as it allows an extensive inquiry within a real-life context (Yin, 2015). A case study is appropriate when the researcher investigates a real-life bounded system for a period of time through full in-depth data collection (Stake, 1995). “The single most defining characteristic of a case study research lies in delimiting the object of study: the case” (Merriam, 1998, p. 27). The second important consideration in a case study is defining its boundaries (Stake, 1995). The bounded case was Tobrikay Corporation (pseudonym) over a period of 6 months. For this reason, a case study was the most appropriate selection due to using interviews from the learners, SMEs, and management, in addition to documentation collected on student surveys, observations, and class attendance, which provided a more comprehensive collection of data. The defined case was the experience of the learners and SMEs attending the blended learning courses.

An instrumental case study was selected for this particular study for its holistic approach (Johnson & Christensen, 2008) to exploring why a phenomenon occurs as it does. An instrumental type was appropriate for this case study because a small group of participants were explored to ascertain a pattern of behavior that can be used to generalize or further develop theory (Stake, 1995). An instrumental case study is also a conventional method among academics when there is interest in generalizing and expanding findings (Johnson & Christensen, 2008). The goal of this research was to arrive at conclusions that may be applied outside of this particular case and assist other companies with their blended learning programs and understanding their organizational culture.

Research Questions

The following central question was used in the exploration of this case study: What have the learners and SMEs experienced in the adoption of blended learning at Tobrikay Corporation? Additional sub-questions were:

1. What transactional distance have the learners and SMEs experienced?
2. How do learners and SMEs perceive each other in the teacher–student relationship?
3. How do learners and SMEs perceive the equivalency of the blended learning program compared to TF2F learning?

Setting

There are two levels of sampling used in a case study: the selection of the case and the selection of the participants. The setting for the study was a software company. I used a convenience sample in the selection of this case, as I am an employee of the company. I selected a single case study due to the phenomenon being explored and as I had full access to the company. Pseudonyms were used to protect the company and each participant.

Tobrikay Corporation is a large, privately held multinational company with more than 1,000 employees and an annual revenue in excess of $300 million for calendar year 2017. Tobrikay Corporation sells software in order to sell training. Tobrikay Corporation trains outside companies on the most efficient and effective ways to use their software. The learners are not learners within the company but outside users. The company has been operating for over 30 years in the Midwest providing insurance software solutions servicing over 12,000 clients globally. Tobrikay Corporation SMEs are former field insurance agents who are experts in their field and have decided for one reason or another to teach the software on which they formally worked. The demographics range from 35–60 years old and are a mix of race and sex. The

clientele or learners of the software include a vast array of employees in a corporation from the administrative assistant to the owner of the company and everyone in between. Sex, age, and race are diverse. Tobrikay Corporation's mission is to improve the business of insurance through innovation. Innovation is at the forefront of its mission, vision, and core values. The core values consist of the following: always be innovating, be the standard to which others want to follow, attract and retain the best in the business, and be accountable to the customers and each other. Tobrikay Corporation is considered a global leader in the industry and has received numerous awards for best practices including business and innovation awards.

Participants

The case study participants included learners, SMEs, and staff. I used maximum variation purposive sampling to select approximately 15 participants comprised of 10 learners and five SMEs. A *learner* was defined as an employee of an Tobrikay Corporation customer undergoing training to use Tobrikay Corporation's software. A *SME* was defined as a trainer or teacher tasked with developing learners into competent users of Tobrikay Corporation software. Learners and SMEs were selected if they had taken part in the blended learning program, both the online section and the face-to-face portion. Participants included learners and SMEs with substantial blended learning program experience and some new users. Learner participants generally reflected Tobrikay Corporation's software user demographics in terms of gender, ethnicity, and age. Patton (2002) recommended a minimum of five participants for each focus group. Two separate focus groups of five learners and five SMEs were recruited. Two additional learners and SMEs were selected in case a member was unable to attend.

Procedures

The first step before any data were collected was to obtain approval from the Institutional Review board (IRB), which was granted (see Appendix G). I met with management to identify the potential learners and SMEs to participate in the case study. Data collection began with the request of company documents pertaining to the case study, including emails, yearly briefings, and the mission, vision, and values of the company and the department. I collected artifacts, consisting of manuals, PowerPoints, public postings, and files, from Tobrikay Corporation to further identify themes and trends. I gathered information from management to clarify the intent of the training department.

I worked with Tobrikay Corporation's management team to identify potential participants, as management has a close working relationship with clients. Participants were selected based on maximum variation sampling with the help from management to ensure a diverse sample in terms of user experience. Potential participants received a recruitment email with the title and purpose of the study, requirements for participation, discussion of risks and potential benefits, and notification that participation was not mandatory and that there were no consequences for not participating (see Appendix A). Participants were assured that all responses would remain confidential and that pseudonyms would be used in the final dissertation. Prior to data collection, all volunteers signed a consent form (see Appendix B), and I stored data in a secure location. I took field notes during the interviews and audio recorded each interview. The length of each interview was approximately 30–60 minutes. The participants received the interview transcripts to verify the information was accurately recorded.

After I gathered information from the interviews, I set up focus groups with two groups: five learners in one group, and one group of five SMEs. The focus groups along with the

interviews allowed me to gather data from diverse perspectives and experiences. The focus groups ran approximately 1–2 hours each. I recorded the focus groups, took field notes, and provided transcripts to participants for member checking.

The Researcher's Role

The role of the researcher in a case study can take many different roles such as a teacher, advocate, evaluator, biographer, or interpreter (Stake, 1995). As a member of the group under study and as the researcher, I collected data as an insider participant observer. Being a member of the group has many advantages such as knowing the culture and climate and the inner workings of the organization and having familiarity with the some of the participants (Unluer, 2012). As the human instrument in this case study, I shared experiences and held biases regarding the study. Although I knew some of the SMEs, I had not had much professional interaction with them, as we work for the same company but in two different departments. Following Unluer (2012), I needed to be aware of overlooking certain routine behaviors, making assumptions instead of clarifying, and ensuring I see all dimensions of the bigger picture. My background is also relevant, being the human instrument. I am currently employed by the company as a curriculum designer and had been for the prior year at the time of writing. I did not design any of the courses that were evaluated by the SMEs or learners, to avoid any biases in regards to the training.

Data Collection

Quantitative research relies on statistical analysis to validate the research, where qualitative research depends upon multiple methods and sources to validate research. The most crucial aspect of qualitative research is the collection and analysis of data. Data were triangulated in order to ensure the data were trustworthy, reliable, and valid. Data triangulation is the

incorporation of multiple sources of data contained in the case study (Creswell, 2013). The data were collected through various sources to ensure validity (Creswell, 2013). Data collection for case studies predominantly involves questioning with interviewing participants and in focus groups of individuals who have experienced the phenomenon (Creswell, 2013). I collected data in a systematic manner (Stake, 1995) using four data collection methods: interviews, document analysis, focus groups, and observations. The order in which data collection was performed was important. The intended sequence of events is the process of selecting the sequential order of collecting data (Wolcott, 1994). The sequential order for this study was first to perform document analysis. Company documents provided insight to the company and education department's mission. Semi-structured interviews then allowed me to ask questions and follow up with open-ended questions. The interviews allowed me to note certain behaviors that came up during the interviews. I then conducted focus groups in which I documented observations. Here, I took notes on behaviors and followed up with the questions noted during the focus groups. Conducting the focus groups last allowed for follow-up questions and discussion concerning the interview results.

Document Review

Gathering documents to aid in a case study is as important as interviews and observations. The key is to be organized and systematic, yet open to new ideas (Stake, 1995). I thus gathered company documents including: the address to the company by the chief executive officer, the state of the department address from the vice president, PowerPoint presentations given to employees, and company and department policies and standards. The company documents explained the purpose, mission, and vision of the company and education department. Furthermore, they provided the intent of the organization and department, and the path of their

intentions. I reviewed company documents prior to the interviews, focus groups, and observations. Reviewing the information beforehand allowed me to ask more complex follow-up questions (Patton, 2002). I also obtained evaluations from past courses, which provided insight into what previous learners had said about the training. This was key in exploring the perceptions and experiences of the learners. I similarly gathered feedback to management, which identified concerns SMEs' had brought to management.

Interviews

Perception is reality. The most effective method of obtaining each person's reality is through the interview (Stake, 1999). Obtaining each person's experience was critical to this particular case study to determine the primary question of what the learners and SMEs' experienced in the training. Creswell (2013) advised to use an interview protocol. I developed a single interview protocol for use with the learners and SMEs (see Appendix D). The interview protocol was peer-reviewed and did not require revision. The purpose of interviewing both groups was to maintain the realities of each group, and at times capture conflicting views (Stake, 1999). Capturing conflicting views added to the richness and complexity of this case study.

Interviewing is the art of asking questions and listening (Denzin & Lincoln, 2003). I utilized semi-structured questions to gain information from the interviewees (Stake, 1999) while allowing for flexibility and follow-up inquiry. The questions were focused yet allowed the interviewees to speak openly. The use of open-ended questions allowed me to ask additional follow-up questions to explore further themes, trends, and concepts (Patton, 2002).

Potential participants were identified by management who provided contact information for sending the recruitment email. Ten learners and five SMEs participated in semi-structured interviews lasting between 30 and 60 minutes. Interviews were conducted in person when

possible at either Tobrikay Corporation or at their location of business, whichever was convenient for the participant. Geographic distance made interviewing in person not permissible, a Webex session with the use of a webcam was established. Field notes were taken during the interviews. Interviews were recorded, transcribed, and checked by participants to ensure the accuracy of the statements made.

The first question for each group aimed to develop rapport with the interviewee. The second through seventh questions aimed to gain an understanding of participants' backgrounds and familiarity with blended learning as a whole. The purpose of those questions was to determine any slant or bias on the interviewees' part (Patton, 2002). Questions 8 through 10 were level 1 questions (Yin, 2014) specific to their perceptions and experiences of blended learning at Tobrikay Corporation. All research questions were addressed through the interview to ascertain the learning experiences and perceptions of learners and SMEs.

Focus Groups

Focus groups occurred after the interviews. Focus groups are valuable in qualitative research because they allow participants to build upon what others say (Patton, 2002). Knowledge gained during the focus group added to the body of knowledge on the learners and SMEs' perceptions and learning experiences. There were two separate focus groups, one for learners and one for the SMEs, to ensure each group spoke freely, without editing themselves. Guidelines were presented to both groups before the session began and each session was videotaped for recording purposes. Each session lasted approximately one to two hours, allowing for discussions to develop fully.

Focus groups are composed of homogeneous groups (Patton, 2002). These focus groups were assembled and conducted separately consisting of two groups. The first group consisted of

enrolled students and the second group included current SMEs. The groups included five participants in each and an additional back-up participant in case one dropped out. Race, sex, ethnicity, and sexual orientation were not taken into account. The main focus with regards to assembling the group was to ensure data triangulation. The focus groups responded to open-ended questions and each session was recorded. Field notes were taken for follow-up questions. The recording was transcribed at a later date, noting participants' gesticulations, and sent to each group's participants via email for member checking.

Focus groups provide the opportunity to debate, contradict, and affirm others' opinions (Patton, 2002). In person, focus groups provide richer data (Patton, 2002). The purpose of conducting the focus groups at Tobrikay Corporation was to allow the participants to hear other participants' replies and provide additional comments, as recommended by Patton (2002). This led to participants speaking freely and allowed for a richer discussion. I asked six questions. The first question solicited any questions or concerns that arose from the interviews. The second question was the guiding research question for this case study. Blended learning has been shown to lower costs (Kannan & Narayanan, 2015) and provide greater student satisfaction (Batalla-Busquets & Pacheco-Bernal, 2013; Ho et al., 2014), especially when compared to TF2F learners, and more importantly, to produce similar competencies (Ilic et al., 2013). This question, in addition to the interview questions sought to discover how each group perceived the experiences they had regarding the training program at Tobrikay Corporation. The subsequent questions aimed to pinpoint the exact reasons for their perceptions.

Observations

I conducted observations current students only in order to construct a "relatively incontestable description" (Stake, 1995, p. 62). This was to document any reactions or visual or

auditory cues the participants made for follow-up purposes (Patton, 2002). I selected the participants to be interviewed based on maximum variation of experience. Then, I observed learners in their office settings (see Appendix C for observation protocol). The observations were scheduled in advanced, but the topic was not known to the learners to ensure no prepping was done beforehand. The observations lasted between 2–3 hours each and were located at either Tobrikay Corporation or participants' location of business, whichever was more convenient for the learner. I observed both an easier concept, such as adding a customer, and a more difficult concept, such as adding a policy, as identified by the SMEs.

Data Analysis

During qualitative research, large amounts of data are generated and it is recommended data analysis be continuous (Creswell, 2013). One of the main challenges of qualitative research is the large amount of raw data a researcher must comb through. Yin (2009) recommended establishing a data analysis protocol before data are collected. There are many different types of analytical strategies that may be utilized for case studies (Creswell, 2007). The first step is to present and articulate the case, then conduct cross-case analysis to compare and contrast various themes and patterns (Creswell, 2007). For this particular case study, I followed Huberman and Miles' (1994) analytical model to analyze the data. Analyzing data is not a one-size-fits-all approach in qualitative research, but must be customized (Huberman & Miles, 1994). Huberman and Miles' strategy consists of writing notes in the margins of fieldnotes, writing reflective passages in notes, drafting a summary of the fieldnotes, making metaphors, writing codes, noting patterns and themes, counting frequency of codes, building a logical chain of evidence, and comparing and contrasting.

After receiving IRB approval, data collection and analysis began immediately and continued throughout (Creswell, 2013). Data collection from multiple sources provided a substantial amount of rich descriptive data. The first step in analyzing data for my research constituted gathering data and organizing data. I first contacted management and obtained the names of the participants and contacted those participants via email. During the contact with management, I obtained any and all company documents that may be pertinent. Gaining access to information prior to the interview allowed me to ask poignant follow-up questions.

I began by interviewing each participant. I created a summary after contact was made with each participant to capture my initial thoughts and feelings as recommended by Stake (1995). The sessions were recorded and transcribed by a third party to ensure transcripts were objective. All files were saved and maintained on a password-protected laptop computer. The focus groups were handled in the same manner as the interviews: each focus group was recorded, transcribed, and stored in a password-protected laptop computer. Member checking was used to verify the intent of the participants' voices was successfully captured. Stake (1995) referred to member checking for precision and exactness. I examined the data collected and proceeded to code.

Coding is the process of aggregating research data into smaller categories of information and assigning it a label (Creswell, 2013). Coding draws connections from raw data to identify patterns and categories. I created a coding system for the transcriptions of the interviews, focus groups, and observations. I then identified and classified themes and patterns (Creswell, 2013). As patterns emerged, I compared and contrasted the two different groups for cross-case analysis. The final step was to interpret and present the data (Creswell, 2013).

Trustworthiness

Validation measures the accuracy of the researcher's findings (Creswell, 2013). The validation strategies I used were as follows: triangulation, interviewee reflection, debriefing, clarifying researcher bias, member checking, familiarity with the subject, and adoption of well-established research methods including a critique checklist (Stake 1995). The credibility of the study was amplified through data rich interviews, focus groups, document collection, and observations.

The combination of the data collected ensured triangulation of data. The purpose of triangulation is to reduce participant bias and increase reliability (Stake, 1995). The information was triangulated across the four data collection methods: interviews, focus groups, observations, and artifacts. This provided a rich data collection. First, I collected evidence and compared and cross-checked information, as recommended by Stake (1995). Stake also recommended member checking. I conducted member checking after the interviews to ensure I had captured the spirit and intent of the interviewees. Credibility, dependability and confirmability, and transferability were addressed to tackle the different aspects of trustworthiness.

Credibility

Member checking is an effective way to provide credibility and reduce researcher bias (Stake, 2009). Member checking was used to capture the experiences of the participants and the intent of recorded statements accurately. Member checking helped reduce researcher bias (Stake, 1995). Participants edited or added to the transcriptions at their discretion. To establish the accuracy of interviews and focus groups, they were recorded and transcribed by a third party. This avoided any suppositions on my part. I instructed the transcriptionist to transcribe all sounds and utterances even those found to be inaudible to capture the interviewees' thoughts.

Additionally, my knowledge of the company and its politics allowed me to ask the participants informed follow-up questions.

Dependability and Confirmability

Dependability and confirmability provide the reader of the study confidence in the study findings (Stake, 1995). Dependability was achieved through data collection by approaching data collection in a methodical manner to aid in replicability of the study. A protocol was developed for each stage of the data collection. I recorded, took detailed notes, and transcribed everything said by the participants. Confirmability was achieved through the triangulation of the data collected, as previously discussed. In addition, I stated all personal biases at the beginning of the investigation.

Transferability

Triangulation of data collected was used to establish the transferability of the study findings. Although this was a single case study about a specific phenomenon, the research results may be transferred to other corporate learning environments. Lastly, Stake (1995) explained thick description is key to transferability. This was performed in this research study by interviews, focus groups, observations, and artifacts. Last, all field notes and transcripts were maintained to provide an accurate audit trail.

Ethical Considerations

Creswell (2013) discussed a plethora of ethical considerations that may threaten the reliability of a case study. As a researcher, my main concern was the potential for participants to skew the truth if they were not comfortable with me as the human instrument. There was also a possibility the participants would consider some questions or areas of discussion sensitive in nature. My intention was to treat each participant, regardless of their feelings or perceptions,

with the utmost respect and not circumvent their experiences. In addition, as a human instrument working for the company, there was a potential for the research data to contradict the mission, vision, and values of the company. The participants were informed that I am a peer without any professional influence upon their careers. I reminded participants that the study was confidential, and that each participant would be provided a pseudonym. Participants were given the opportunity to decline at any time or to refrain from answering a question. Any information participants were not comfortable saying for the record was removed from the transcript at their request without any repercussion to them. The corporation, participants, and their respective companies were given pseudonyms to protect confidentiality. All information, files, and transcripts were kept in a secure filing cabinet. I stored all research data in a password-protected computer.

Summary

This qualitative case study aimed to explore learners and SMEs' experiences in the adoption of blended learning at Tobrikay Corporation. A central research question and three guiding sub-questions focused the research. In Chapter 3, I explained how I conducted this case analysis in detail. As the researcher, I served as the primary instrument for data collection and analysis. I further explained the data analysis procedures and validity and credibility of the research study.

CHAPTER FOUR: FINDINGS

Overview

The purpose of Chapter 4 is to present the results of the data analysis. The goal of this qualitative case study was to explore the perceptions and experiences of learners and SMEs at Tobrikay Corporation regarding software systems training in a blended learning environment. Data were obtained from former and current learners of the software and current SMEs who taught the learners. This information was obtained through interviews, focus groups, observations, documents, and archival data designed to answer the following central question: What have the learners and SMEs experienced in the adoption of blended learning at Tobrikay Corporation? Additional sub-questions were:

1. What transactional distance have the learners and SMEs experienced?
2. How do learners and SMEs perceive each other in the teacher–student relationship?
3. How do learners and SMEs perceive the equivalency of the blended learning program compared to TF2F learning?

Chapter 4 begins with a rich description of the case participants and a summary of their experience and perceptions. Next, I present the themes that emerged, along with evidence supporting the themes from the participants. I conclude with a report of the findings and a brief summary.

Types of Training

Tobrikay Corporation has a plethora of training options available to learners. The costs vary and are addressed under each specific type of training. It is important to identify and explain the training types. There are two ways organizations arrive at Tobrikay Corporations software. Some organizations purchase the software to modernize their offices and the rest migrate from a

different software program. Regardless of the reason, learning to use the software is a hurdle for clients. Each organization may create a training package according to their budget. The following list details the types of training offered at Tobrikay Corporation:

1. *Post activation Support.* Once clients subscribe to the software, they have a point of contact and assistance with transferring their data. Post activation can be performed synchronously in person or virtually and is included with the price of the software.
2. *Tobrikay University*. All organizations are given a one-year subscription service to Tobrikay University and must pay for subsequent years. Tobrikay Corporation mandates each learner must have an individual subscription to the university. This subscription causes a dramatic increase in cost to an organization that has many users. Tobrikay University is a repository of asynchronous virtual training. Organizations have access to over 200 courses that are approximately 1 hour in length. These courses are intended for learners to take before live synchronous training (virtual or in person). Some small organizations do not have the budget to pay for training. In this case, the university is designed to teach them how to use the software in lieu of live synchronous training. Tobrikay Corporation also creates courses for advanced users to maximize the software and to keep organizations paying for the subscription after their first year.
3. *Synchronous Virtual Training*. The university subscription also offers specific synchronous virtual training. Here, learners can sign up for a specific course and attend with a variety of organizations. These courses are generic in nature and not specific to any organization. Many large organizations have Tobrikay Corporation's

software customized for their organization. This often presents challenges as the synchronous virtual training cannot address customized products.

4. *Live Instructor Training*. The organization has the option of purchasing live instructor training, which may be conducted virtually or in person. The price is the same for virtual or in-person training, however in person has the added travel cost for the SME. The organization has the option to purchase as many hours as they want. Tobrikay Corporation offers set training which is targeted to difficult areas, such as the accounting function or sales automation training. Learners may also dictate a set schedule, agenda, and action plan for Tobrikay Corporation to follow, or organizations may work with Tobrikay Corporation to create a set schedule, agenda, and action plan of how many hours of training they want to purchase for their organization. The organization also has an option to purchase live training at any point during the life of the software.
5. *Tobrikay Corporation Training Database*. During in-person or virtual training, a training database is set up for the learners to practice. The training database contains the organization's real customers. The learner is able to practice on customers the learner is familiar with and make mistakes without affecting someone in the real world. The training database is included in the price of live training.
6. *Private Support*. Another type of paid training is private support. Private support is synchronous assistance that can be conducted virtually or in person to address company struggles, personalization, and/or customization of the software. Private support is afforded at an additional cost to the client and may occur at any time for however long the organization requires. Private support is utilized after private

training and Tobrikay University courses are taken. Private support is designed to do the work and not train learners, although it is covered under Tobrikay Corporation's blended learning program.

7. *Tobrikay Optimization Training*. Tobrikay optimization training is live synchronous private training. It is conducted similar to private training; organizations/learners may purchase as many hours as they desire and it may be used at any point during the life cycle of the software. Tobrikay optimization training is designed for use after a learner has taken Applied University courses and private training. The goal during optimization training is to identify opportunities to maximize the current use of the software and leverage the software features.
8. *Help File Tutorials*. Help file tutorials are self-paced asynchronous online learning free for the learner to access anytime, anywhere. The learner may access help file tutorials while in the software system. The help file tutorial will auto-adjust and offer specific help depending upon what section of the software a learner is in or offer learners a general search feature. In the United States, the help file tutorial offers two methods of learning: a Microsoft Word document or a short, brief, often 1–2 minute interactive video. For clients outside of the United States, the organizations are only offered the Microsoft Word document explanation.
9. *Office Hours*. Another form of training is referred to as "office hours." Office hours offers synchronous live virtual training 2 days a week and is free to the learner. The learner may ask specific questions on specific issues or information. Office hours are available 2 days a week for a set of hours; the days and hours are constant and do not

change. Office hours are typically used after initial training and Tobrikay University courses are taken.

10. *Workflows*. Workflows are comprehensive Microsoft Word documents providing a step-by-step guide on how to perform actions in the system and are included in the software fee. Workflow documents range in length from 30–50 pages. The workflows do not offer a visual representation of what the learner should click.
11. *Instructional Documents, Handouts, and Guides*. Tobrikay Corporation also provides instructional documents, handouts, and guides as supplemental aids during live virtual or in-person training. Instructional documents are different from workflows. Instructional documents are limited to a certain topic and offer pictures of a detailed step-by-step process. These documents do not include the reason a person would use the document.
12. *Release Updates*. All organizations receive an email regarding software updates. This is a short email that briefly explains the updates Tobrikay Corporation performs on their software.

Participants

Demographics

The participants in the study consisted of adults from the United States and Canada. Maximum sampling was used to select participants to obtain a variety of experiences and perceptions from SMEs and learners. Pseudonyms were used to protect the identity of the participants. The interviews were conducted via Webex online sessions. The SMEs were all employed by Tobrikay Corporation and instructed users on how to use the software in order for learners to complete their jobs. The SMEs were chosen for their diverse backgrounds,

experiences, and ages. The SMEs tended to have a shortened tenure teaching, with the average person leaving the position after 8 years. The learners of the software held a variety of roles in their organizations from training experts in their company to front-line users of the software. The learners held vast experience levels in the company and with the given software. The learners interviewed were either Canadian or American. Participant demographics including name, position, age range, and nationality of each participant are listed in Table 1.

Table 1

Participant Demographics

Name	Position	Age Range	Nationality	Focus Group Participant
Alex	SME	50–60	United States	X
Brittney	SME	40–50	United States	X
Carla	SME	30–40	United States	X
Donna	SME	30–40	United States	X
Eric	SME	50–60	United States	X
Florence	Learner	50–60	Canada	X
Gayle	Learner	30–40	Canada	
Hannah	Learner	50–60	Canada	X
Isabella	Learner	40–50	Canada	
Jacob	Learner	40–50	United States	X
Kaylee	Learner	30–40	United States	
Laura	Learner	40–50	United States	X
Matthew	Learner	40–50	United States	
Natalie	Learner	30–40	United States	
Olivia	Learner	30–40	United States	X

Individual Descriptions

SMEs.

Alex. Alex is an American male in the age bracket of 50–60 years old. He had been working with Tobrikay Corporation for 9 years and had been an instructor for 6 of those years. He had over 20 years of experience in teaching. He was considered a senior member of the instructing team and was often referenced as the go-to person for training. He had taught online,

in-person, and blended learning. However, for the past few years, his main focus had been online learning and he was considered one of the most knowledgeable in training and in the software.

Brittney. Brittney is an American female in the age bracket of 40–50 years old. She had been working at Tobrikay Corporation for 3 years and has been instructing the entire time. She taught a combination of online, in-person, and blended learning. She had roughly 15 years of experience in the field of teaching including high school, college, and adults. She had 5 years of experience working with the specific software systems in the study. She was considered an expert in not only teaching but the industry as well.

Carla. Carla is an American female in the age bracket of 30–40 years old. She had been with Tobrikay Corporation for almost 4 years and has been instructing the entire time. She did not have prior teaching experience, though she had field experience using other industry software. She was considered an expert in her industry. She had taught online, in-person, and blended learning.

Donna. Donna is an American female in the age bracket of 30–40 years old. She had been with Tobrikay Corporation for 1 year. She was unlike the other SMEs as her background was primarily in training, and she was not an expert in the specific software used at Tobrikay Corporation. She had previously taught soft skills, hard skills, and train-the-trainer sessions. She spent the first 6 months of her time at Tobrikay Corporation learning the software. She taught online, in-person, and blended learning, but spent most of her time teaching blended learning.

Eric. Eric is an American male in the age bracket of 50–60 years old. He had been with Tobrikay Corporation for 21 years and had worked in many different departments. He had conducted peer-to-peer learning, both informal and formal; mentoring, daily roundtables, and document resources. He was considered an expert at mobile and online learning, although he had

instructed in-person as well as blended learning. He had taught in some capacity for 20 years at Tobrikay Corporation.

Learners.

Florence. Florence worked as a top tier training manager at a large international organization located in Canada. She was responsible for training in the United States and Canada. She is in the age range of 50–60 years old and a Canadian citizen. She oversaw the training operations and conducted train-the-trainer sessions. She was considered an expert in her field and with the software. She was required to stay current in the software, as it affected company-wide operations internationally.

Gayle. Gayle worked for a large organization located in Canada. She was an everyday user of the software and had approximately 5 years of experience. She is in the age range of 30–40 years old and a Canadian citizen. She considered herself a skilled and proficient user.

Hannah. Hannah worked as a top-tier training manager at a large organization located in Canada. She was responsible for training multiple Canadian organizations. She is in the age range of 50–60 years old and a Canadian citizen. She oversaw the training operations and conducted train-the-trainer sessions. She was considered an expert in her field and with the software. She too must say current in the software, as it affected company-wide operations.

Isabella. Isabella worked as a training manager at a large organization located in Canada. She was responsible for training multiple Canadian organizations. She is in the age range of 40–50 years old and a Canadian citizen. She oversaw the training operations of the organization. She was considered an expert in her field and with the software.

Jacob. Jacob worked as a training manager at a large organization located in the United States. He was responsible for training at a mid-level organization he had been employed with

for approximately 8 years. He is in the age range of 40–50 years old and a U.S. citizen. He was considered an expert in his field and with the software.

Kaylee. Kaylee worked for a large organization located in the United States. She was an everyday user of the software and had approximately 6 years of experience. She is in the age range of 30–40 years old and a U.S. citizen. She considered herself a skilled and proficient user of the software. She claimed to not use the entire software system due to her job duties but used the majority of the software.

Laura. Laura worked for a mid-level organization located in the United States. She was an everyday user of the software and had approximately 10 years of experience. She is in the age range of 40–50 years old and a U.S. citizen. She considered herself a skilled and proficient user of the software.

Matthew. Matt worked for a small organization often referred to as a 'mom and pop' located in the United States. He was an everyday user of the software and had approximately 10 years of experience. He is in the age range of 40–50 years old and a U.S. citizen. He considered himself a skilled and proficient user of the software.

Natalie. Natalie worked for a small organization located in the United States. She was an everyday user of the software and had approximately 2 years of experience. She is in the age range of 30–40 years old and a U.S. citizen. She considered herself a proficient user. She admitted to not knowing the ins and outs of the software and only using a portion of the software due to her job duties.

Olivia. She worked for a small organization often referred to as 'a mom and pop' located in the United States. She was an everyday user of the software and had approximately 3 years of

experience. She is in the age range of 30–40 years old and a U.S. citizen. She considered herself a proficient user. She reported not being an expert of the software and only using a portion of it.

Results

Theme Development

The purpose of this case study was to explore the perceptions and experiences of learners and SMEs at Tobrikay Corporation regarding software systems training in a blended learning environment. Detailed data description was derived from observations, interviews, focus groups, and field notes. The data were recorded, transcribed, organized, and manually coded and recurring themes were identified. A total of 32 different codes were extracted from the interviews and focus groups and categorized by the most predominant themes, which included learner-teacher, learner-content, learner-learner, and learner-interface interaction. Table 2 presents the frequency of codes. Table 3 lists the codes, themes, and subthemes as they appeared during the research. There are four sets of variables associated with and measuring students' experiences and perceptions of training, whether in person or online (Zhang, 2003). Moore (1987) originally identified three variables, where Zhang (2003) added the fourth of user-interface for online/blended courses. This study found consistency in these four sets of factors: learner-teacher, learner-learner, learner-content, and learner-interface.

Learner-teacher. The first major theme that emerged was learner-teacher interaction. The relationship between student and teacher played a pivotal role in identifying the learner and SMEs perceptions. There were multiple differences between online and in-person learning. The three minor themes under learner-teacher were communication, feedback, and environment.

Table 2

Frequency of Open Codes

Open Codes	Frequency of Codes Across Data	Number of SMEs Discussed	Number of Learners Discussed
Training is boring	32	5	10
Training is too long	27	5	10
Learners engagement	25	5	10
Amount of learning content	25	5	10
Interaction	24	5	10
Difficulty of training	24	5	10
Length of training	24	5	10
Learning environment	24	5	10
Chunking content	21	4	10
Too much information	20	5	9
Quick responses	17	4	9
Distractions during training	19	4	8
Teachers engagement	15	5	7
Collaboration amongst peers	15	2	10
The why	17	3	9
Training is not specific enough	13	0	10
Online training at my own pace	10	0	8
Jump to other parts of training	12	3	7
Convenience	13	0	9
Practical application	12	2	8
Training environment	14	5	4
Reinforcement of learning	9	2	7
Too many updates with software	14	0	9
Prep time for training	13	5	2
Buddy learning	11	2	5
Time to process	7	1	6
Add pictures	9	2	4
Learners motivation	7	2	3
Content is too complicated	6	0	4
Take notes	6	2	2
Ease of software	4	0	3
Customized training	4	2	0

Table 3

Codes, Themes, and Subthemes

Open Codes	Major Theme	Subtheme
Learner engagement	Learner-teacher	Communication
Teacher engagement		
Quick responses		Feedback
Time to process		
Prep time for training		Environment
Learning environment		
Distractions during training		
Training environment		
Customized training		
Take notes		
	Learner-learner	
Buddy learning		
Collaboration amongst peers		
Reinforcement of learning		
Learners motivation		
	Learner-content	
Training is boring		
Training is too long		
Chunking content		
Practical application		
The why		
Training is not specific enough		
Amount of learning content		
Interaction		
Online training at my own pace		
Ease of training		
Length of training		
Too much information		
Convenience		
Add pictures		
Jump to other parts of training		
	Learner-interface	
Too many updates with software		
Content is too complicated		
Ease of software		

The perceptions expressed by learners prior to this study were generally favorable as reported in the Kirkpatrick's level 1 evaluation of Tobrikay Corporation, obtained through the artifact collection. However, SMEs routinely reported having to change their training agenda due to learners not taking their prerequisite online courses (Alex, Brittney, Carla, Donna and Eric). Learners thought the evaluation was a performance evaluation on the instructor and not an evaluation of the blended program (Florence, Gayle, Hannah, Isabella, Jacob, Kaylee, Laura, Mathew, Natalie and Olivia). Learners often voiced issues with SMEs directly. The SMEs had issues with the blended learning program as well and often voiced their opinions through unofficial channels. The need to decipher true perceptions and experiences were needed for the blended learning program through a qualitative case study.

***Communication*.** Communication between learner and SME was a theme repetitively stated in the interviews and focus groups among both SMEs and learners. Lack of timely communication causes a hindrance in learning (Moore, 1993). Communication was cited by 90% of the learners as causing a hindrance to learning. Eric mentioned during online training that it depends on the SME: "Sometimes an instructor [SME] will just go on and on. Like they know it so well, they just keep going." Learners appeared to have issues with live in-person training and virtual training. Isabella said, "It's easier to get lost in online training; the instructors don't pay as much attention to the students as they do in person." Florence stated, "I like when the teachers [SMEs] are asking questions, it keeps me focused on what we're doing." Jacob added that it was easy to get lost in either form of training if the SMEs are not engaging.

The SMEs were in agreement with the learners on communication issues. Brittney stated, "Oftentimes when I am teaching in person, learners are not asking questions during class. They wait until a break or at the end of class and we will end up having a long conversation." Alex

found when teaching online synchronously, “Users [learners] often don’t ask questions while I am teaching. When I am doing my review at the end of the day, I will ask them questions and still not get a response.” In-person training offers visual cues that learners are actually understanding the information. Carla stated, “I like teaching in person, I can see the students and you can see if they understand or have that confused face.”

The SMEs noted the most questions they received were during office hours. Alex stated, “I get a lot of specific questions.” He added, “I will receive some basic, but usually highly advanced questions. I enjoy it, because I really feel like I am helping the user [learner].” Donna reported, “I usually get asked a lot of questions. If I don’t know the answer, I make sure to research the problem and get back to them.”

Tobrikay Corporation offers follow-up office hours. Here, learners seemed to respond well, as questions can be answered by a SME on any area of the software system they encounter. Office hours are scheduled and offered 2 days a week for a certain number of hours. The learners stated this was only utilized by smaller companies (Olivia and Isabella). Olivia stated, “In our company, if I have a question, I go to a coworker first. If they can’t help, I will call in during office hours. Since they are only offered 2 days a week, I must wait to ask my question for a couple days. But I always get my question answered.” Large organizations typically employ their own training team and do not rely on Tobrikay Corporation as much. Gayle, from a large company, stated, “We don’t use office hours. If a user [learner] has a question, they go to their peers, then to the training managers.” Gayle further added, “It seems like a great idea, but my partner and I are experts, so there isn’t something that we haven’t encountered.”

Tobrikay Corporation created a method to solve complex questions that sometimes perplex SMEs. Tobrikay Corporation instituted a special email that SMEs could send out 24

hours a day, 7 days a week to all SMEs in the organization to resolve learner questions quickly. A SME codes the email and any SME can respond with the answer. On average, an answer will be given within 1 hour. The SME can then respond to the learner in person or virtually. This quick feedback was acknowledged by 100% of the learners and SMEs. The SMEs further added it saved them time when they were unsure of an answer.

***Feedback*.** Constructive feedback is designed to help learners gain confidence and motivation. Teaching online requires more feedback to ensure learners are learning. Brittney said, "Users [learners] are supposed to take 20–50 hours of online training before I go out and teach them. I know they aren't doing it, because we always have to start with the very basics and it changes my training plan." Carla said, "There is no formal way to track whether our clients have taken the online training before I get there. I stress the importance of them doing it, so we can take a deeper dive into the subject matter, but it's clear they haven't done it." Asynchronous online learning is not highly regarded by SMEs or learners. Hannah stated in regard to synchronous online learning, "Sometimes the instructor [SME] will just go on and on without a break and I have found myself spacing out." Furthermore, online training does not offer formal nor informal feedback. A formal or informal assessment does not exist. Jacob reported, "At least in person, I can get an 'atta boy,' but taking training online, there is no one to say I'm doing a good job." It was reported by 80% of the learners during interviews that there was no way to know if the learner in fact learned the content viewed.

The relationship between learners and SMEs is cooperative in nature. Kaylee stated, "It is rare to have a problem with an instructor. We did once. I spoke with the manager and the problem was fixed immediately." Laura stated, "The instructors are great...they are really patient and work with us." Olivia agreed, "The instructors really want to see us succeed and it shows,

because in the end if we don't succeed, they don't succeed." The instructors care about the learner's as well. Alex stated, "I want them to learn. My job is to help the learners make sure they know how to use the product…it really does matter to me if they learn."

Tobrikay Corporation offers multiple ways for learners to obtain answers to their follow-up questions: directly with the SME, office hours, and support. All 10 learners found the multiple ways helpful. The larger organizations often defaulted to emailing their SMEs, which went against Tobrikay Corporation protocol. Smaller organizations often waited for office hours to get questions answered.

Both learners and SMEs reported they were inundated with the variety of learning material. The SMEs reported having to search in multiple places to find answers (Brittney, Donna), and often it was easier to email their fellow SMEs for specific questions. Learners faced this issue as well. With all the material available, searching through documents could take hours (Laura, Matthew, Florence, Jacob, and Natalie). Even if learners found their topic of concern, it was not enough detail to answer their specific question. Learners stated it was quicker to send a detailed email to their SME or call during office hours.

Environment. The learning environment in which learners and SMEs operate plays a major role in the success of the training program. There are two training environments to take into account: in person and online. In-person training requires SMEs to travel via plane and live in a hotel for a week, for which the learner's organization pays the expenses. Carla professed, "When I do in-person training, I lose time with my family because I have to travel on the weekends." Brittney acknowledged, "Living in a hotel during the week isn't fun and I miss out with my family." Donna stated, "It is fun, I get to travel to new cities. I try and go out to enjoy the city, but usually I end up staying late helping the client, then I crash at the hotel." Alex

confirmed, “Traveling wouldn’t be bad if it were sporadic, but I travel a lot and it is taxing on the family, especially if I am traveling on the weekends.”

The in-person training environment was identified as problematic for learners as well. Learners do not have access to the system while they are conducting in-person training. The learners watch the instructor on a large screen demonstrating the software, and the learners take notes. Brittney said,

> I let the users [learners] drive the computer, then I have them switch off. But I know there will always be some students that don’t want to get up in front of their peers. So, I try to encourage them by telling them we will rotate, and I will go slow...but you can just tell some of the users are just intimidated. I don’t know if they’re intimidated because they are learning something new, learning on the job, or just don’t want to look dumb.

Carla iterated, “I ask for volunteers to drive the computer, but I know some people just aren’t paying attention.” She continued to explain, “I know they aren’t paying attention because they will ask me the same questions later.” Another issue was the actual training environment. The majority of the time, training is conducted in a conference room or break room, and training is one to many. Donna specified, “I don’t always know the environment, or it can change. I try and bring extra computer cables and equipment, just in case they don’t have it.”

Learners faced other issues with in-person training, not related to the training itself. Learners leave their desk and are unable to perform their job duties while in training. Olivia stated, “It’s hard to block off several days for training. This means I am away from my desk and not able to do my job.” Natalie specified, “I lose productivity when I have users [learners] in training. They typically end up working longer hours to play catch up at work.” Laura asserted, “I try and take as many notes as possible, so I can remember how to do what we are learning. But

it's like drinking from a fire hose." Laura stated, "It's hard to watch how to do something and then remember it."

The learning environment for synchronous online training is vastly different. The SMEs are able to work from home and courses are taught via Webex with video and audio included. Donna emphatically stated, "I love working from home, I can wear sweats and be comfortable at my desk." Alex concurred and stated, "I can wear comfortable clothes and there is no commute time, so that means more me time." Brittney affirmed, "I love working at home, I am comfortable, and I don't have to commute!" However, SMEs face issues with learners during this time. Learners struggle with controlling the office environment during training. Learners will often not turn their video feeds on, so SMEs are unable to see learners' reactions (Eric, Brittney, Carla, Alex, & Donna). Donna added that she experienced someone walking in a learner's office and proceeding to carry on a conversation with the learner while during the training.

Learner-learner (peer-to-peer interaction). The second theme that emerged was learner-learner interaction. The relationship of learner-learner interaction played a pivotal role in identifying learners' experiences and perceptions. It was reported as a critical learning element by both SMEs and learners. Learners reinforce their own learning by having to explain learning concepts to their peers. Florence stated, "When I help someone to learn something, it solidifies it in my mind." Hannah agreed and said, "It helps when we are learning something new to be able to ask the person next to you if you forget a step. It's not like I don't know how to do the whole thing, but sometimes I may miss a step." Gayle agreed by stating, "I like learning in pairs, I feel like there is less pressure on me. If I miss something, my partner is there to remind me." Hannah stated her organization promotes peer-to-peer learning versus paying for a university subscription. Laura stated, "If users [learners] have a question, their first step is their peers, then

if the problem can't be solved, they go to the training managers." The larger organizations implemented their own learning program, the first step of which consisted of peer-to-peer learning.

The SMEs agreed peer-to-peer learning is extremely helpful particularly in clarifying information for learners. Alex stated, "I think it's great because when I am no longer there, they will naturally rely on each other, so it gets them in that mind frame of asking each other questions." Brittney said, "I wish we did more peer-to-peer learning. I have found users [learners] learn best by working together to solve problems." There are a multitude of instructor resources a SME can use to trouble shoot learning or answer specific questions learners may have. However, it seems at times there are too many resources for SMEs to sift through in order to find an answer. Tobrikay Corporation instituted an email group that will send out a mass email and code the email to the group as a learning question. Experts in that area then reply to the email group with the answer. Donna was in agreement when Carla mentioned, "At Tobrikay Corporation, if I have a question, there is a standard email that gets sent out to all SMEs and I can ask questions. If I just need a quick answer it saves me a lot of time or they can point me in the right direction."

Learner-content. The third theme that emerged was learner-content interaction. The relationship of learner-content played a pivotal role in identifying the learner experiences and perceptions. The four minor themes under learner-learner were: flexibility and convenience, short chunked content, learning materials, and interaction.

Flexibility and convenience. Flexibility is a key component and one main advantage to online learning (Watts, 2017). Every learner stated flexibility in learning is critical to adult learning. Matthew stated, "I have a lot to do, not only learn my job, but I had to learn how to use

the software to do my job. I needed to be able to learn while doing my job." Olivia mentioned, "I like online learning, because I feel like I learn slow, so I can work at my own pace and not be rushed by others." Natalie stated, "I like online learning, because I can do it when I want and where I want." Florence was pressed for time in bringing her company up to speed with the new software. She commented, "I learned day and night and on weekends; time was not a luxury I had."

The SMEs agreed with students in regard to synchronous online learning; they enjoyed the aspect of teaching from the comfort of their homes (Alex, Brittney, Carla, and Donna). The SMEs gained a minimum of 10 hours per week when they taught online versus in person. This gain was a result of not needing to travel to and from the organization site, fly, or check into hotels. The SMEs also noted being more comfortable teaching from home.

Short chunked content. Measuring attention span in adult learning has been difficult to quantify. However, data have demonstrated the learner's attention span declines after 15–20 minutes and after 20 minutes, lectures become less effective (Cooper, 2017). All learners interviewed desired shorter, more chunked content. Kaylee stated, "I can't pay attention to a 1-hour course online." All learners specified online learning is boring. A common complaint with online asynchronous learning was the learner could not jump to a specific section or repeat a section that was unclear. The videos were not designed with a fast forward or rewind button. If a user needed to relearn one section, the learner was forced to watch the entire recording. If the unclear material was at the beginning, the learner did not have to watch as much material. However, if the material was at the end, the learner could spend an additional hour replaying the video to get to the point of the material for which they needed clarification. Natalie stated, "I don't have time to watch a whole recording, I just want the specific section I need." Olivia

agreed, “I just want a quick video to show me what to do.” Several learners cited and were observed playing the training in the background while they worked in order to save time.

The desire for short chunked content did not alter between online or in-person learning. Olivia stated:

> In-person training can be overwhelming when learning all day. It’s a lot to take in. I sit there all day watching someone how to do something in the software and I can’t remember it. We are learning for 8 hours, minus lunch…but it seems like forever.

Kaylee agreed:

> I can’t imagine sitting there training for 8 hours. Ours was a little different…we did training in shifts, so I only sat there for a few hours and then we switched up and another group took the same training in the afternoon…I thought that was hard, I can’t imagine 8 hours.

This was a common issue with in-person training. Some instructors also noted that training for eight hours a day, five days a week was difficult for learners. Brittney said, “By the end of the week you can see the students have had enough…it’s like all the air was let out of their balloon.” Alex added:

> You may not be able to see their expressions online, but you hear it in the silence…after a long day of training there are no questions and we cover difficult topics…So I try to ask questions…but their tones change…from cheerful when we begin to exhausted when we finish.

Everyone was in agreement content would be easier to digest if content was short and chunked.

Learning materials. The SMEs and learners had 13 different types of learning available to obtain information. Often, both groups reported there was too much information available and

research took a long time to derive an answer. Several learners complained the Word documents (workflows, handouts, and instructional aids) were generic in nature and not specific to their organization (Florence, Gayle, Hannah, Isabella, Jacob). Florence stated, “I design custom training documents for my people to use that are specific to what we do and our clients.” Olivia confirmed, “The documents will explain how to do something, but not tell me the why, I need to know the why.” This feeling was reiterated by Florence: “The documents aren’t detailed enough; they are pretty broad. Give me a scenario and tell me why I am doing it.” Isabella stated, “Tell me what to do, why I am doing it, and show me a picture. There are so many places to click—it takes me forever to find what I am clicking.”

The Flesch-Kincaid grade level is a measurement based on total words, sentences, and total syllables to calculate the grade-level at which material is appropriate (Kincaid, Fishburne, Rogers, & Chissom, 1975). The higher the Flesch-Kincaid grade level, the more education is needed to understand it. Tobrikay Corporation’s average grade level is 13, which indicates it is appropriate for the average person to read with one year of college (Kincaid et al., 1975). To put this information into context, the New York Post and CNN have just over a tenth-grade reading level and the BBC has not quite a tenth grade reading level, according to Tauberg (2019). Florence specified, “I’m sure it’s not a problem for the U.S., but sometimes the language can be a bit confusing.” Tobrikay Corporation users consist of a variety of positions, educational backgrounds, and nationalities. Gayle asserted, “Don’t impress me with big words, just tell me what to do.” Several learners reported they had a desire for Tobrikay Corporation to use smaller words and be more succinct (Isabella, Jacob, and Olivia).

Interaction. Learners often complained about the length of training. For example, Florence stated, “It is long and boring and there is no interaction.” Multiple learners stated online

asynchronous learning is long and boring and they would rather wait for someone to come and teach them (Hannah, Isabella, Jacob, Kaylee, Laura, Natalie, and Olivia). During the observation, I witnessed learners would oftentimes switch screens and check their email or follow up on other work tasks. The SMEs also reported that during training, learners were often distracted with work and checked email or their phone (Carla and Donna). Brittney mentioned in regard to online learning, "I often design questions to ensure learners are paying attention." Donna stated, "I do get a lot of complaints from users [learners] that they don't like online learning because there is no interaction." Tobrikay Corporation did incorporate short topical interactive videos to address this concern, for learning specific topics. Students responded well to the interactive short clips, but acknowledged, they would have been appreciated had it been an initial way to learn the software (Laura and Gayle).

Learner-interface. The last theme that emerged was learner-interface interaction. The relationship of learner-interface played a role in identifying the learner and SME experiences and perceptions. If learners struggle with access, it will negatively impact their feelings and perceptions about learning. Both learners and SMEs felt the software and learning platforms were easy to use and manage. The training was accessed and available via mobile, Internet, and tablet. This made learning convenient.

However, there was one major issue that arose with the learners. Tobrikay Corporation updates/alters its software several times a year. Florence stated, "I don't think they understand how much we have to do once they send out a new release. We aren't a mom and pop, it has to go through our IT testing before we can release it. Then our trainers have to figure out what happened and what other areas are affected." She further stated not enough information is provided to the large corporations about the impact of the update. Organizations will receive a

brief email regarding the updates. All of the learners stated the information in the email is not enough to understand the impact of the update or the cause and effect the update has in other areas of the software. Isabella mentioned she wished they would only update once a year or wait and push all the updates out at once. Jacob and Gayle concurred with Isabella, adding sometimes the updates had flaws that caused even more issues.

Research Question Responses

One central question was used in the exploration of this case study to determine the learners and SMEs' experiences in the adoption of blended learning at Tobrikay Corporation. Three guiding questions supported the central question. In the ensuing sections, I provide responses to each question.

Central question. The central question was: What have the learners and SMEs experienced in the adoption of blended learning at Tobrikay Corporation? Tobrikay Corporation does not have a set, established blended learning program. The blended learning program is comprised of 13 different methods selected by learners and/or learners and SMEs together. Tobrikay Corporation blended learning programs consists of: TF2F learning, live virtual learning, and online resources and documents. The blended learning program is based on what an organization can afford in terms of finances and resources and can look very different for each organization. This leads Tobrikay Corporation to spend a considerable amount of resources staffing and funding the 13 different learning methods.

In order to address the central question, the blended learning components needed to be isolated and addressed individually in order to provide for a rich, detailed study of the program. Learners and SMEs had an overall positive experience of the blended learning program. However, the combinations that learners selected to use were pivotal to this study. The SMEs

were included as their perceptions and experiences directly influenced learners as well. Effective blended learning combinations reduce cost and time for Tobrikay Corporation and the learner, and allow resources to be used more efficiently. Below, each method is addressed individually.

Post-activation support. Post-activation support is free for each organization. Post-activation support is the primary point of contact to ensure all initial data are loaded into the software or migration of the data has occurred. This is the initial impression an organization will have of Tobrikay Corporation. It is important to note the majority of learners will not have any interaction with the initial support. Organizations limit access to a few people responsible for the transition. The SMEs reported post-activation support has a great influence over the learners who have access to it, which may be positive or negative. The SMEs cited post-activation support was critical in the new software. Tobrikay Corporation must ensure organizations have a smooth transition to the software. Florence stated,

> I knew we had to change to the new software. I wasn't looking forward to it, because...it was...going to be my responsibility to ensure our entire organization was trained up and knew how to use ... the software. But, my post-activation support was wonderful...he answered any and all questions I had and...was essentially my go-to guy.

Post-activation support is free for each organization. Post-activation support provides access to over 200 courses that are approximately 1 hour in length. These courses are intended for learners to take before live training. During post-activation, while data are being uploaded or transferred to Tobrikay Corporation's software, learners are assigned to Tobrikay University course learning tracks. Tracks are a series of courses based on the learner's position in the organization. For example, administrative personnel are assigned a different track than an accountant, and a low-level employee may have fewer courses in a track compared to a higher-

level employee. Tracks are assigned to learners and it is strongly recommended learners take the courses and/or tracks 4–6 weeks before live training. Not all organizations can afford live training. As such, primarily for the smaller organizations, this constitutes the majority of their training. For the larger organizations, is a precursor to live training.

Tobrikay University. Tobrikay Corporation strongly encourages organizations to maintain a membership with Tobrikay University. Tobrikay University also contains additional courses and tracks to maximize user experience. Once a learner becomes adept at their assigned track, the learners can take advanced courses. As long as a membership is maintained, learners are not restricted to their assigned courses or tracks and may take any additional course or track they desire.

The training has not been well-received by students or SMEs. Even during a positive comment, learners often described negative aspects. The learners liked the fact they could take training anywhere, at any time. Hannah said,

> I don't have time during the day to do all this training, it's a lot of training...I mean, a lot...I like the fact that I can do it after hours or on weekends ... or even before starting my work day. But, I do have to prepare myself. The training is long, monotonous, and boring. I mean, you just sit and watch a video...There is no interaction with the video. You just play and it goes on for at least an hour...and do you know how many of these things we have to take?

Not all companies maintain their subscription; it is common for organizations to reduce the amount of subscriptions. Tobrikay Corporation does not enforce, nor do they have any way to track if a learner is signing in with his/her login and not a coworker's login. Florence stated,

> We do things different at our organization. We do keep a few logins...not one per learner, because that expense would be too great for our company and I couldn't justify it. But, I will have taken just about every course they offer, I have to...I am the training expert. Then I take their courses and make user friendly courses for my organization. There is no way my learners could sit through all of that training; it would just never work.

This learner was not alone in admitting to taking Tobrikay Corporation's training classes and designing courses to fit the organization. Jacob reported, "Yeah we do that. I don't know if it's supposed to be something I talk about. But I am responsible for training that my organization will take."

All of the learners desired short, chunked, interactive material. One learner stated, "When I need to brush up on a topic, I would love to just pull up a short YouTube video...a couple minutes and I'm done. But these videos take hours and there's no skipping ahead or anything." Matthew said,

> We couldn't afford live training, so this is the closest we will get to it. Yeah, learners don't like how long it is and how many they have to do, but this is all we have. It's not so bad when you only have to do one or two, but when you have a track, it's a killer [*laughs*]. We all wish they were short like the Help Files.

Synchronous virtual training. Included in the Tobrikay University subscription are live, synchronous, online courses. Announcements are posted and learners can sign up at any time before the class begins, as long as learners have a subscription. These courses are generic in nature and not specific to any organization. Many large organizations have Tobrikay Corporation's software customized for their organization. This presents challenges as the training cannot address customized products. The larger organizations find these classes confusing and of

little value. Olivia stated, “We don’t have the resources for paid training, but in these courses we have an instructor teaching us live and answering our questions.” This was starkly contrasted by Isabella, who stated,

> Our products are too customized for the classes. I wish they would group the bigger organizations together for one class to address topics that larger organizations face, then have a class for the mom and pop offices...I know they are all customized in different ways, but maybe we could address higher-level issues or something.

Live instructor training. Any organization or learner can purchase live training, which is held virtually or in person for any number of hours at any point in the software cycle for any reason. Live instructor training is the learning method preferred when initially learning the software system. The SMEs overall prefer in-person training to virtual training. Teaching virtually does have its advantages; Carla indicated she gets to spend more time with her family, and it is comfortable teaching from home. However, the bigger drawback, Donna said, “I can’t get nonverbal cues when I teach online. I don’t know if they are paying attention to me, confused, or checking their email.” Learners seemed to be of two minds as well. Many factors come into play with live instructor training, the learner’s age, comfortability with software, openness to learning, learning styles, along with a whole long list of factors. Hannah stated, “I enjoyed working with my instructor, that’s how I learned how to use the software, but there is no way…my entire organization could learn…it’s not practical…it’s extremely costly. That’s why I have to come up with training for them.” Some organizations have the ability to quarantine the learners to allow the learners to solely focus on training. Laura stated, “it’s really helpful when we can give people dedicated time to learn the software and not focus on their job duties.” Natalie added, “unfortunately sometimes it is not always possible to shelter them from their

work." Kaylee interjected, "We had just gotten a new accounting person, all of her training was done live and that was her sole job…to learn."

Training database. The training database is used in conjunction with live training. Learners may practice with a dataset they are familiar and comfortable with, as opposed to made up data along with invented situations and scenarios. This allows the learner to practice in an environment without jeopardizing their real clients. Learners overall tended to enjoy the database, as they deal with real situations and not isolated examples in a vacuum. Natalie articulated the nuances with the database:

> I like the database, because they are my clients, I know their history and I know why they have policies and I know when they are renewing...It's not made up and incomplete information...I get to practice with a client I am familiar with and I was able to see what effects it had in the software as I performed different actions. The only downside is, you have to remember the information is old...You may have performed certain actions, but the training database does not stay current...It may be a couple months old,...so it doesn't reflect that you have...altered an account.

Learners learn to adapt to and understand the database is designed to give them realistic examples with which they are familiar. Olivia replied, "It's great to go in and play with people I am familiar with. It's not perfect, but I don't think it needs to be."

Private support. Private support is similar to live instructor training. Private support focuses on personalization and customization of the software. The primary difference in support and training is who conducts the work, meaning Tobrikay Corporation will do work for the organization and private training will teach the organization how to do the work. Some organizations will purchase private support because the organization does not have the time to

perform non-routine tasks, like building templates. In this case, the organization will purchase private support and not private training and have Tobrikay Corporation build the template. If the organization wants to learn how to build the template, the organization will purchase live training. Private support is well-received by learners, Laura declared: “We consider it cheating, in a good way [laughs]...It saves me a lot of time setting it up.” The SMEs reported support can cause some confusion for learners. Alex revealed, “Sometimes during training, learners will want us to do it for them, so I have to explain to them that I teach learners how to do it and if you pay for support, they can do it for you.” Support and training can become a blurred line with learners.

Help file tutorials. Help files are free to any user of the software, similar to help files in a Microsoft Word program. Tobrikay Corporation did not design help files to teach a user how to initially use the software. Help files are designed to help the stumped learner. The files are easily accessible anywhere in the system and auto-adjust to the area the user is currently in; this is designed to save the user time from having to sift through information. The help files are offered in two formats. For U.S. software users, a short interactive tutorial or document explains step by step how to perform a certain action. International markets have access to the document method only. Learners respond well to these files. Jacob stated:

> Help is used to help you when you’re stumped in the system. It’s great if you can’t remember how to do something; pull up the help file and it’s right there. You can watch a short interactive clip or read the explanation and it will teach you how to do whatever it is that you need. It’s not going to tell you the why, but it will tell you four different ways how to perform one simple action.

Help file tutorials are effective when there is a task you do on occasion. Matthew remarked, “If I don’t do something often, I can go to help, and the information is right there. It will say click

this, click that, click this." Learners responded well to the help file tutorials and found them most effective as a refresher after all training was complete.

Office hours. Office hours are offered on a first-come first-served basis at a set time 2 days a week. There is no priority treatment offered. There is no additional cost for learners to access office hours. On occasions where there are too many learners, not all questions get answered, however this is not the norm. Learners may ask any questions they encounter regardless of the size of their organization or customization of the product. The larger organizations use this method of training the least, if at all. Jacob said:

> We don't let users in our organization use office hours. If they don't know how to do something, they go to a buddy first, and if that doesn't help...then it goes up the chain of command...Last, it comes to me; there isn't too much that I don't know...If I can't figure it out, I will reach out to my trainer.

Reaching back to a former trainer does violate protocol but seems to be an acceptable practice at Tobrikay Corporation.

The smaller to medium-sized organizations rely on office hours. These organizations contact live instructors and troubleshoot an issue or address specific questions. Natalie stated:

> I love office hours. I can share my computer with the instructor [SME] and they can help me right then and there...There are some times when I get a question that even perplexes them [laughs],...but they always get back to me with an answer...The only downside is it's offered 2 days a week; it would be nicer if they could offer it more times.

Overall, learners relied on office hours when they were having issues.

Workflows. Workflows are lengthy and time-consuming Microsoft Word documents that can range from 30–80 pages in length. There are numerous workflows written for learners to

utilize. Workflows are designed for two uses: initial use and as a reference. Tobrikay Corporation advises organizations to print one workflow per student before live training and instructs learners to use workflows to take notes. The learners will then use this documentation after training or as a refresher. Learners and SMEs did not have good perceptions of these documents. The SMEs struggled with the time it took to update the documentation and also felt they were hard to keep update. Since the software system is updated approximately four times per year, the documents should be updated as well. The SMEs and learners' biggest complaint was the workflows were too detailed or not detailed enough. This often-created ambiguity within Tobrikay Corporation and highlights misperceptions. Gayle verbalized,

> The workflows are long, very long. It would be okay if they contained all the details you would want to know...but they don't...They don't include the why, why would I do xyz, in what situation would I need to do xyz. Also, they include some pictures, but not even half of the buttons I need to click. So although they are super detailed and long, I wouldn't mind if it contained every step...[as a] picture.

Florence iterated, "They are very detailed documents, and that's fine...but if you're going to be very detailed, then go ahead and have all the details." Hannah relayed:

> A dictionary is long and that's okay, because it has all the words. Don't make me use several long workflows then add instructional documents on top that and then handouts and guides or whatever they are called. I don't have time to sift through all that documentation. Give me one thing, one…I don't care how long it is, but have all the info be there…I can use the table of contents and jump to page 300 and that's fine with me."

The SMEs acknowledged very few learners used the workflows after initial training. Carla said, "I see students take notes during the class. I just don't feel they use them later...They will call

into office hours and ask the very thing that is in the workflow." Learners had a general consensus the workflows did not meet their needs and overall were not effective as part of the blended learning program. The SMEs held the perception the workflow documents were only useful during initial training for learners to take notes. Both groups believed the documents could be more useful.

Instructional documents, handouts, and guides. Tobrikay Corporation also provides handouts and instructional documents as supplemental aids during live virtual or in-person training, and also during live Tobrikay University courses. Instructional documents are different from workflows. Instructional documents are limited to a certain topic and offer detailed pictures along with a step-by-step process. These documents do not include the reason a person may use the document, which is the biggest complaint from learners. Laura stated,

> I love the instructional documents. I think it's Tobrikay's version of a cheat sheet. It takes you through step by step with pictures...They are shorter than workflows...but not as short as an actual cheat sheet. I don't think they are capable of doing anything short...But throw away the first two pages and at least it cuts it down.

Instructional documents were also well received by the SMEs. Eric stated, "Instructional documents don't take long to update and are easy to maintain. If something changes, I can just grab another picture and save the file, easy peasy." The instructional documents are maintained for all SMEs on a SharePoint site and can easily be tracked for editing purposes. Learners tend to discard handouts and guides after live training. Learners often remarked how many trees are killed with Tobrikay training. Kaylee reported, "No, I don't those—I have enough paperwork to sift through...Handouts and other documents are just overkill...No one has time to go through all that."

Release updates. All organizations receive an email regarding software updates and a non-interactive recorded training course. The email is short and briefly explains the updates Tobrikay Corporation performed on its software. The online training course is housed in Tobrikay University and runs approximately 1 hour. Release update training frustrated both learners and SMEs. Learners found the material was not comprehensive and did not explain the interaction with the rest of the software. Jacob explained:

> Release updates are miserable, but what's even worse is the training. They may explain there is a new button, but not the fact that it alters the information on six other areas...Now I have to go in and figure out all the impacts of the button and to the other areas...and why do that have to update the software so much? I don't feel they do enough testing once they do an update.

Natalie concurred:

> I dread release training, it's really not training, it's just a quick email that says they updated the system...it doesn't really explain anything...the only thing I can do is go in and figure it out, find out what changed and how it impacts other areas.

Learners were not alone in their feelings about release training. Release training often frustrated SMEs as well. The SMEs had to learn the new software feature(s) and update their personal training documents and live training. The SMEs expressed general consensus regarding release training, as best summarized by Alex, who stated, "Releases are a necessary evil we deal with... I'm not a fan...it creates a lot of work for us."

Summary. The overarching issue was learners and SMEs felt inundated with learning materials and learning methods. Both groups felt the variety of options was exorbitant. This led to both groups cherry-picking materials and methods. Learners and SMEs used a combination of

blended learning that felt comfortable for the individual and disregarded the totality of training offered. Larger organizations often bypassed Tobrikay Corporation protocol and requested outside special assistance. Larger organizations also redesigned training for the needs of their learners.

During this study, it became apparent that the SMEs and learners interviewed had similar experiences toward the adoption of blended learning. The interviews identified four major themes: learner-teacher, learner-learner, learner-content, and learner-interface. The first challenge was learner-teacher interaction, specifically communication. The SMEs faced many challenges toward the adoption of blended learning particularly as it pertains with online learning. The SMEs cited the lack of physical interaction as a drawback. Similarly, students felt the online portion lacked any type of interaction. This led to the minor theme of feedback.

Feedback is a multifaceted issue for both SMEs and learners alike. Learners appreciated receiving feedback instantaneously during in-person training. However, many learners were hesitant about being singled out in front of their peers. The learners valued the quick turnaround time on follow-up questions during synchronous online or in-person training. Learners acknowledged when questions arose, there was an avenue to seek answers. Learners did not value asynchronous online training as much, citing the lack of an opportunity to receive feedback.

Particularly for learners, blended learning has created a co-learning environment where peer-to-peer interaction and cooperation help to understand the lessons. Digesting the learning materials seemed to be easier in blended learning environments, given that learning materials are supplemented by immediate feedback from SMEs and peers, as well as the availability and accessibility of said materials in various learning platforms. Learning environment was an

obstacle in both virtual and in-person training. Participants reported spacing out and becoming distracted in both virtual and in-person training, mostly referring to the length of the training and the difficulty of the learning materials as the primary causes. Here, the SMEs made additional efforts to design the trainings and questions in an interactive manner where the basics were thoroughly covered. Learners also found not being able to perform the actions along with the SME in person did not provide the learners the opportunity to learn.

For SMEs, feedback and questions from learners were taken as an indication that the learners were listening. The SMEs preferred in-person training because they could see their students and immediately gauge reactions. Communication and feedback, which were repeatedly cited as integral components to learning, were also easier during in-person trainings. The SMEs also acknowledged the convenience and flexibility of virtual training as an advantage, given that traveling and training setup remain a challenge.

The SMEs and learners both liked the flexibility and convenience of the blended learning program as well as the personal interaction. Both had to make adjustments in terms of schedules and time away from work and their families during in-person trainings, but this was compensated for by the flexibility of the online trainings. There were gaps identified such as ensuring the learners study the course, frequent updating of the interface, and more interactive spaces, however the overall feedback was positive. Tobrikay Corporation, for its part, has made strides to address some of these concerns, such as incorporating short, topical, interactive videos to increase the interactivity of the courses.

Guiding question 1. The first sub-question was: What transactional distance have the learners and SMEs experienced? As mentioned in the previous sections, transactional distance occurred in four instances: learner-learner, learner-instructor, learner-content, and learner-

interface. Regardless of whether the training was TF2F or blended, transactional distance still occurred. Learner-instructor transaction distance appeared to be the most prevalent issue reported by learners and SMEs. Both groups felt communication was the trigger for the distance. Learners conveyed a gap existed with receiving feedback. This gap was often referred to as a feeling of isolation. Isolation lessens learners' attention during trainings and makes learners prone to become oblivious to the training. Learners felt isolated during long periods of online asynchronous training. Laura stated:

> When you do the training online, it's long and boring, you just sit there and watch videos...There is nowhere to practice, no place to figure out if you learned something...you just hope that when your done watching you can remember how to do it...it's just you and this video.

Learners also felt transactional distance with synchronous online learning. Matthew indicated:

> Online learning can be really boring depending on the teacher. Some of the teachers are really not engaging...They go on and on without stopping to see if we understand or are even getting it...This one class we sat there listening to this teacher go on and on, she lost most of us and she just said everyone click thumbs up if your with me...What are we supposed to do?

Isolation was not limited to online training, learners reported feeling isolated during in-person training. Learners also felt in-person training caused distance as typically only one learner would practice, while the rest took notes. Natalie stated,

> One teacher gets up and teaches us how to do something while the rest of us take notes. We didn't learn anything. We just sit there in quiet trying to write everything down...so that way when we get to our desks with our computer hopefully we know what to do.

Learners did not receive feedback as only one learner would perform the action. Oftentimes, during in-person training, learners used their practice time to check email or catch up with clients. Matthew said, “I am trying to stay current at my job and learn in the same day. Sometimes I have to go check email or return a client’s call...I wish I didn’t have to, but it’s life.”

The SMEs also reported learner-teacher transactional distance. The SMEs concurred with the learners and added there was additional distance online because they were unable to receive a visual cue from the learners that the learners understood them. The SMEs experienced transactional distance when they could not get the immediate feedback of the students and could sense their interest waning. Instructors reported that during synchronous online training, many learners muted their audio which left the teachers with no indication of the participants’ understanding of the lesson. Carla stated, referring to learners, “When they are silent...I don’t know if they get it, are lost, or went to the bathroom.”

The SMEs also struggled to engage learners during live synchronous training. Even though in-person training lessens transactional distance, the distance is still present. Brittney stated,

> In face-to-face training, I can see their faces. I can tell if they are paying attention. I can tell if they are confused...I can see if they are asking their colleagues questions. They don’t talk a lot, so I have to ask them questions...sometimes it’s like pulling teeth.

The SMEs sometimes became frustrated with learners. Donna stated, “I do the best I can. I try to make it interesting and ask questions...but sometimes they just don’t respond.”

There is one pivotal area Tobrikay Corporation has been able to minimize distance. For SMEs, Tobrikay Corporation has resolved a communication problem through the institutionalization of an email group which ensures experts will immediately answer questions

from SMEs that learners may pose regardless of learning modality. Learners often reserve this method for serious learning inquiries only. Donna stated emphatically, “Our group emails are the best...you can be on a client site, in office hours, or just working with a client and someone will respond to you instantly.” The SMEs also reported this email group has made their teaching easier, as SMEs may not be up to date on new changes. The SMEs have subject areas they are weaker in than other areas and this alleviates some stress on the SMEs’ part; instead of sifting through hundreds of pages of reference material, the SME can send an email to a group and get a quick response.

Learner-content is the next transactional distance topic. Transactional distance was a common appearance through learner-content. Learners habitually noted content was either too detailed or not detailed enough. In some areas where content was reported as too detailed, learners also cited it lacked quality. In these cases, learners stated they were offered multiple ways to perform one action but were not provided enough details to perform a specific action. Learners often understood how to do something but did not understand why or under what circumstances they would do something. Isabella stated:

> I wish they had one document to show me how to do something. If I don’t understand something, it’s more than just the steps involved...It’s in what situation would this occur or what are the common troubleshooting issues...It’s more than just yes, I can do it. I need to understand everything around it.

Learners cited time was also a major issue with creating distance in asynchronous online training, primarily the Tobrikay University courses. Learners were not able to forward nor rewind. If a concept was not understood, the entire video would have to be restarted. Kaylee stated,

> The videos are like an hour. The instructor will talk about this and that and this and that and then say okay click here, here, and here. Then go back to talking about generals and things we don't even care about. I can't jump over that information...then God forbid I miss something, I can't simply go back and hear it again. It is really frustrating.

Learners and SMEs also cited the inundation of learning materials was overwhelming.

Both groups expressed when questions rose each group defaulted to what was comfortable for them. Learners often waited for office hours or asked the trainer initially assigned to their organization. If SMEs received questions outside of their purview, they sent out an email to all SMEs for a quick response as opposed to sifting through documents.

The last opportunity for transactional distance specifically applies to learning online, the learner-interface interaction. The graphical user interface (GUI), which creates a common distance in blended learning, did not seem to be problematic in this case study. Learners felt the GUI did not distract from their learning. Florence said, "The system rarely goes down if it all." The SMEs were in agreement. Eric said, "It's pretty shocking when the system goes down, just because it never happens." Connectivity to the software has had positive impacts upon SMEs and learners.

The only complaint among the learners was the amount of times the interface is updated. Learners felt one update per year would be adequate, not the several updates every year that Tobrikay Corporation performs. Matthew stated, "There are just so many updates, sometimes they are super minor, but sometimes they will just completely add or change a major button and we have to relearn or figure out what it does." Learners perceived the transactional distance in the frequency of updates, not the actual updates. Florence added,

> I wish they would do fewer and more meaningful updates...they may change one small thing here or there or the color, something with no impact...but they make it a big deal... Changing a picture on a button is way different than adding a button,...but they treat them the same. Then I have to go in and spend a lot of time testing the system to make sure there wasn't a mistake on Tobrikay's update.

Tobrikay Corporation does not distinguish between minor or major updates in the software.

Guiding Question 2. The second sub-question was: How do learners and SMEs perceive each other in the teacher–student relationship? The learner–teacher relationship developed as a major theme during the interview and observation process. Participants frequently cited the relationship is the important to learning. The theme of communication and feedback was critical in how learners and SMEs perceived each other in the learning process. The SMEs conveyed frustration with learners in regard to learners not taking asynchronous online training before synchronous in-person training. Carla stated, "We build schedules and courses on the fact that learners are taking the pre-work...and if they don't now, I have to change everything on the fly and adapt to the fact they do not know the basics."

Learners admitted the reason they did not take a good portion of the asynchronous online training was due to the long, monotonous hours of training that Tobrikay Corporation required. Natalie stated, "I hate to say this, but those courses are awful. I couldn't sit through many of them, not even most of them, because I couldn't even stay awake." Learners complained the training was mind-numbing and the learners could not fast forward nor rewind the training videos. This often resulted in learners missing concepts, as learners were not willing to start the training over from the start. Learners felt unheard as they had a strong desire for short, succinct, interactive training. Florence stated, "Yes I remember taking those courses [*laughs*], that's why I

have to design training for our people...there is no way they would sit through that." The SMEs had tried to respond and adapt to the situation. The SMEs modified their training plans when they unexpectedly discovered the learners had not done their online training course. The SMEs also attempted to include interactive components into their live programs. The SMEs agreed that online synchronous training needed to be more interactive, but time, resources, and budget constraints made this task difficult. Brittney stated, "I wish someone could come in and advise us on how to add things to training...I'm great at teaching, but not necessarily designing."

Further, while blended learning requires learners to undergo online trainings beforehand, there is no monitoring scheme to ensure this is done. The SMEs noticed that this was rarely the case and the burden of adapting to this situation and changing the training design again fell to the SMEs. Donna said:

> The learners will say they took the pre-coursework, but I know they didn't because they can't do basic things...and there is no way to prove they did it or not...We can't track their completion and they know [it],...that's how they can get away with it.

The SMEs often felt the learners during synchronous online training were not paying attention and felt students were distracted with email or other job functions. Carla said,

> If I am teaching online and ask a question and no one responds, I wonder if they are doing something work related. I understand they have a job to do but knowing how to do this is important to their job.

Learners admitted to being distracted, but felt it was due to the instructors not being engaging enough. Laura said, "Yes, sometimes I check my email because I have pressing matters...and sometimes I check my email because it's the only thing keeping me awake." Overall, learners' perceptions revealed a mixed experience with the SMEs and vice versa. Learners often noted

SMEs were doing the best job they could with what they had. Learners had multiple ways to engage SMEs when learners had questions and questions were responded to in a timely and efficient manner.

Guiding Question 3. The third sub-question was: How do learners and SMEs perceive the equivalency of the blended learning program compared to TF2F learning? The learners and SMEs perceived the blended learning program as equivalent to the TF2F learning program. Each method has advantages and disadvantages impacting effectiveness. However, the largest complain was learners found the combination of 13 different training methods to be overwhelming and, as a result, ineffective. Each learner customized a blended program and utilized the combination of methods that was most effective to them. A blended learning program for one learner or organization may look very different to another learner or organization. Olivia said, “I don’t use everything...I use maybe a handful of different things...that make sense to me...the other stuff is just too much.” Natalie added, “You pick and choose what makes sense to you and ignore the stuff that doesn’t.” Under no circumstance during this case study did a learner use all of the combinations of learning available. Typically, learners used workflows, online tutorials, and live training. This combination was reported by many learners to be the most effective method of learning. SMEs perceived the blended program as efficient as the TF2F learning, however the SMEs felt it needed to be streamlined. Donna stated, “I feel like we need to focus on a few things and do those things really well. Right now we have too many options.”

The most positive aspects that learners and SMEs repeatedly mentioned with the blended program, in comparison with TF2F learning, were convenience, flexibility, and access. Learners found the blended program provided easy access to the software for learning platforms, and

learning materials were easily available. Furthermore, the convenience and flexibility of continuing the training in the comfort of their own homes or after work hours was something TF2F learning does not provide. While there are still aspects of TF2F that both learners and SMEs looked for, such as personal interaction, both perceived the equivalency of the blended program as generally positive. Isabella stated, "[Tobrikay Corporation] is great, one way or another you are going to learn how to use the software. Worse case if something comes up that you don't understand, someone will answer it."

The SMEs also perceived Tobrikay Corporation's blended learning program was better than the in-person training alone. Eric said, "I don't know about you, but we all learn differently, so one method that is effective for me may not be effective for you. That's why we need all these methods." The SMEs found the blended learning program was effective and met the objectives in teaching organizations on how to use the software. Donna stated, "There might be some positives and negatives, but overall it is a great program. If we solely taught in person, there is no way we would be able to train all of these people." Overall, the blended learning program was thought of as equivalent to a TF2F learning program.

Summary

This qualitative case study aimed to explore the perceptions and experiences of learners and SMEs at Tobrikay Corporation regarding software systems training in a blended learning environment. The study was framed by the central research question: What have the learners and SMEs experienced in the adoption of blended learning at Tobrikay Corporation? The following three sub-questions focused the scope of the research:

1. What transactional distance have the learners and SMEs experienced?
2. How do learners and SMEs perceive each other in the teacher–student relationship?

3. How do learners and SMEs perceive the equivalency of the blended learning program compared to TF2F learning?

Tobrikay Corporation offers 13 different training modalities for learners to absorb and understand the material. The perceptions expressed by learners prior to this study were reported as favorable. Learners misunderstood the evaluation process of the blended learning program. Learners often voiced concerns with SMEs and SMEs voiced their opinions through unofficial channels.

Learners and SMEs experienced transactional distance primarily through the teacher-student relationship and student-content relationship. Learners and SMEs often felt disconnected during live training, citing little interaction between each other. Learners and SMEs experienced very little transaction in the student-interface relationship, with the main issue of frequent updates to the software. Learners did find the student-student relationship to be the most helpful in terms of learning. Learners and SMEs found the variety and the combination of the 13 different modalities to be excessive and wasteful, in time and resources. Both groups found the blended learning program too broad in nature and felt it should be condensed, in order to simplify training and learning.

Both groups had similar desires. Learners desired training to be short and to the point. Learners felt if training was concise they would be more apt to taking the training. Learners further wanted training to be interactive and for Tobrikay Corporation to use less videos. Learners yearned for cheat sheets for a quick refresher or a brief 2–3 minute video that explains a task. They also wanted detailed comprehensive documents that explain why a situation would occur and a step-by-step guide with pictures to demonstrate the steps. The SMEs felt if the learners were given short video tutorials, more learners would be prepared before live in-person

or virtual training. This would then allow the SMEs to focus on more difficult concepts and tasks.

CHAPTER FIVE: CONCLUSION

Overview

The purpose of this qualitative case study was to explore the perceptions and experiences of learners and SMEs at Tobrikay Corporation regarding software systems training in a blended learning environment. In this case study, the researcher sought to identify factors that affected learners' perceptions of their training in a blended environment and to isolate emerging themes and trends. As blended learning becomes integrated into adult training, researchers need to ensure that educators employ the most effective training combination. Instead of reporting the specific combination, researchers have been generalizing blended learning as a whole, which has left instructors unsure of how to implement or execute a blended learning program. The problem is that research shows that blended learning produces equivalent learning outcomes; however, learners and SMEs are continuously dissatisfied with the blended learning program at Tobrikay Corporation. The purpose of this qualitative case study is to explore the perceptions and experiences of learners and SMEs at Tobrikay Corporation regarding software systems training in a blended learning environment. This chapter includes a summary of findings, discussion, implications, delimitations and limitations, and concludes with recommendations for future research.

Summary of Findings

In this brief summary of the study findings, the researcher briefly answers each research question. The outcome of this qualitative case study was contingent upon learners and SMEs being honest and forthcoming in their experiences and perceptions with the blended learning program at Tobrikay Corporation. The researcher recorded the participants' responses of their experiences at Tobrikay Corporation regarding software systems training in a blended learning

environment in Chapter Four. What follows is a discussion of the findings based on the purpose of the study. This section includes a summary of the study findings, briefly answering each research question. The data collection methods and tools used for the study included observation, focus groups, interviews, archival data, and relevant documents. This section is structured around the question: What was the learners' and SMEs' experience in the adoption of blended learning at Tobrikay Corporation? The following three sub-questions focused the scope of the research:

1. What transactional distance have the learners and SMEs experienced?
2. How do learners and SMEs perceive each other in the teacher-student relationship?
3. How do learners and SMEs perceive the equivalency of the blended learning program compared to TF2F learning?

The total number of participants was 15, consisting of five SMEs (Alex, Brittney, Carla, Donna, Eric) and 10 learners (Florence, Gayle, Hannah, Isabella, Jacob, Kaylee, Laura, Mathew, Natalie and Olivia) from different backgrounds. To answer the guiding question about the perceptions and experiences with the adoption of the blended learning program, it was necessary to have participants who had used the blended learning program. Thus, this study included experienced SMEs like Alex, with 20 years of experience in training using online platforms, in-person and blended learning programs. Alex found online training more effective and better than TF2F learning; thus, he currently only focused on online training, a field he apparently dominates as the primary person consulted on using the software.

Brittney has 15 years of experience teaching adults, college, and high school students. Brittney recently started using Tobrikay Corporation software systems to teach. She reported her preference for blended learning to TF2F program, citing benefits such as reduced traveling time and the synchronous feature, which is not limited by time or environment. Although Carla has a

shorter experience, she has practical skills in using Tobrikay Corporation software. Carla generally thinks in-person synchronous training is better and also prefers using the blended learning program while teaching. Donna also has a relatively short experience and although she instructs in-person, online, and blended, she prefers the blended learning program. Eric has more than 20 years of experience teaching and prefers online teaching, although he also trains using in-person and the blended learning program. Due to the selected learner participants considerable experience and skills, they could accurately and validly report on their perception and experience using blended learning program compared to TF2F program. The following is a summary of the findings in regard to the research questions.

Central Question

What was the learners and SMEs experience in the adoption of blended learning at Tobrikay Corporation? Analysis of the data revealed four major themes affected the learners' and SMEs' experiences, consistent with the findings of Moore (1993) and Zhang (2003). The four major themes were (i) the relationship between learner and instructor, (ii) learner and learner, (iii) learner and content, and (iv) learner and interface (see Figure 1). Each issue that a SME or learner addressed during interviews, focus groups, and observations fell into one of these categories.

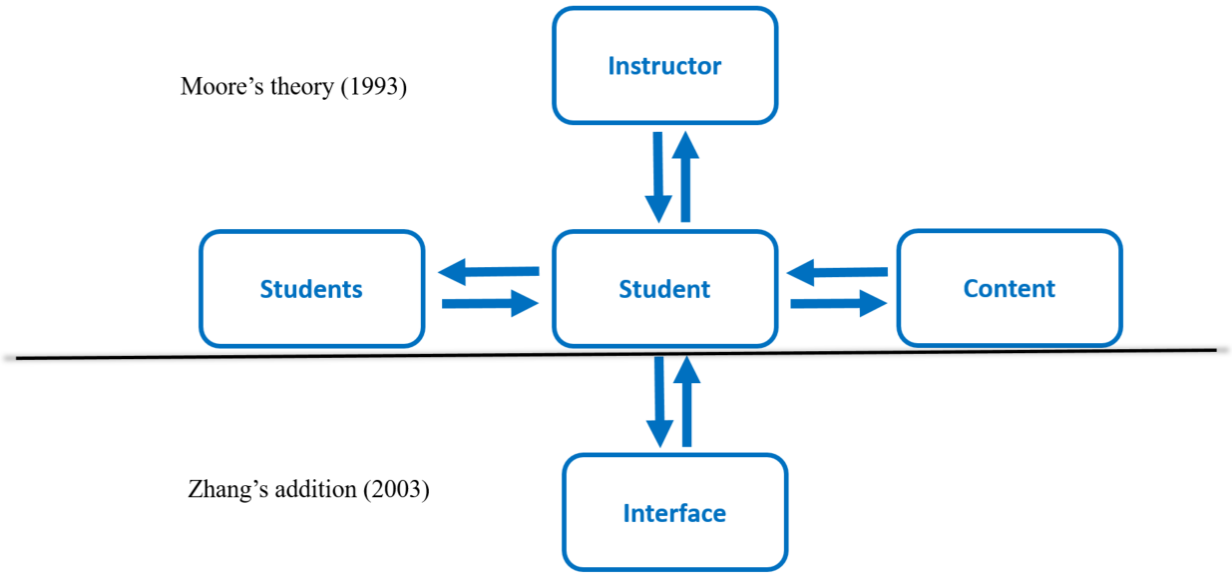

Figure 1.

Graphic organizer depicting the impact of learning

The findings revealed a consistent disconnect between the SMEs and learners, which resulted in similar experiences. Both groups of participants desired interaction with the other party, this break-down in communication was one main reason for the transactional distance between learner and SME. Both groups felt inundated with learning material and information. Learners, specifically, felt overloaded with generic information and not enough of specific information to help them perform at their job. Learners, however, had different experiences based on the SME assigned to teach. Inconsistencies in the teaching style of the SME emerged. Overall, each learner and SME used the combination of blended learning that was most effective for their learning. In some cases, learners would repurpose the training material to suit their needs. The following sections summarize the findings for each research question.

Sub-Question 1

What transactional distance do the learners and SMEs experience? In this study, transactional distance refers to the theory that Moore (1993) developed, refined (Moore, 2003)

and Zhang (2003) expanded. This theory explains the distance between learner-learner, learner-instructor, learner-content, and learner-interface. Based on this research question, which is to determine the transactional distance between the learner and the SME, it emerged that blended learning program can reduce transactional distance. In the previous chapter, the analysis of the transactional distance fell the major themes of learner-teacher, learner-learner, and learner interface, with sub-themes including communication, feedback, and environment. Under the themes of learner-teacher, there is a major difference between online and in-person learning due to issues related to communication, feedback, and environment.

Generally, a majority of the participants preferred online synchronous training due to its convenience for use. However, blended learning was preferable because of its advantages of both online and in-person training. Nevertheless, transactional distance occurs regardless of the training program used. Both the learners and SMEs agreed that learner-instructor transactional distance is the most vital issue in training. They also held that communication determined the transactional distance, such that the more difficult it is to communicate between the learner and the instructor the higher the degree of transactional distance. In addition, training methods that increase isolation also increase the transactional distance between the learner and the trainer. The type of training that the participants mostly linked to isolation was online asynchronous training. Synchronous online training also increased the transactional distance between the instructor and the learner, especially when the instructor poorly engages the learners.

However, online asynchronous training was not the only type of training that the participants associated with feelings of isolation, as they had the same issue with in-person training. The participants felt that transactional distance frequently occurred during in-person training. A SME would lecture while the students take notes, without further interaction between

the two, as only one learner was often practicing on the computer. The SMEs also reported transactional distance between themselves and learners, especially where the learners could not give feedback. SMEs concurred that feedback was very important to them, as affirms that their students understand their curricula. Thus, when the feedback is not given promptly, SMEs experience a transactional distance.

The type of training that most SMEs attributed to a higher transactional distance was synchronous online training because most students switch off their audio, making it impossible to give immediate feedback. However, SMEs also agreed that live synchronous (in-person) training also poses a challenge because although the trainers can observe the non-verbal cues to know that the students are following, the transactional distance occurs when the students do not talk back, forcing the SME to ask them continuously if they are in tandem or whether they have any questions. However, Tobrikay Corporation has devised a way of minimizing the instructor-learner distance and this is through a company e-mail. This allowed an SME to answer any question, regardless of difficulty level, almost instantaneously. SMEs were able to answer questions from learners, regardless of time or day. The SMEs reported that the e-mail works effectively and efficiently, making their work easier due to its special features, such as ability to send a message to a group, receive immediate feedback, and the ability to identify a message of interest because every message has a subject.

Sub-Question 2

How do learners and SMEs perceive each other in the teacher-student relationship? The relationship between the learners and the SMEs was addressed through the major theme of teacher-student relationship. What came out clearly from the findings based on this question of how learners and SMEs perceive each other is that SMEs had a major challenge in terms of

communication. This challenge was mainly a result of students not taking asynchronous online training before synchronous training. This contributes to underprepared learners and causes a negative relational impact between the learners and trainers. It also causes the SME to adjust training on the fly, adding more stress to the SMEs. The findings also revealed that learners found the asynchronous online training offered at Tobrikay Corporation too long for learners to complete. Learners assumed that if they were not prepared, the SMEs could teach the learners the basics from the online asynchronous courses. This meant that more complex topics went unaddressed and learners were not adequately prepared to perform their job. Another problem learners reported with asynchronous online training was that the training was too wearisome to comprehend and even worse is that the videos could neither be rewound nor their speed adjusted. This led to the learners holding the SMEs responsible for the asynchronous online training, whom the learners felt represented the Tobrikay Corporation.

Nevertheless, the SMEs proved that they were cognizant of these problems, as their general perception towards the learners was that they want short, interesting, and engaging lessons. In terms of the type of training, the students would develop unwanted perceptions towards the SMEs when they were not interesting or engaging and the lesson brief. Fortunately, the SMEs' relatively long experience enabled them to understand this problem; hence, findings suggested that they tried their best to ensure that the lessons meet the learners' needs. For instance, the SMEs tried to modify their synchronous online training program by increasing interaction between trainers and learners. However, their efforts were cut short by limited resources, time, and financial constraints. Another challenge that SMEs face with the blended learning program was that the learners failed to take pre-coursework, which eventually

negatively impacts their training. In turn, the learners developed poor perceptions about their teachers and could not concentrate in class.

Sub-Question 3

How do learners and SMEs perceive the equivalency of the blended learning program compared to the TF2F learning? The findings suggested that both learners and SMEs agreed that the blended learning program and the TF2F learning program are equivalent. This is because each program has its advantages and disadvantages, which make a program useful and effective. However, at Tobrikay Corporation, there are 13 different training methods that the learners expressed concerns about. They mainly reported that there were too many training methods, and as a result, the learners only focus on the methods that work for them. Most learners at Tobrikay Corporation use a blended learning approach, although each blended approach was different from that of another user.

The SMEs and the learners expressed that synchronous online training has several advantages over TF2F learning, both groups showed a preference towards the blended learning program. Three attributes about blended learning program stood out as the strengths that make this program preferable over the TF2F. The attributes are convenience, flexibility, and access. Nevertheless, both the learners and the SMEs agreed that the blended learning program could be improved by increasing interaction, making short interactive videos, and more specific reference documents.

Discussion

The purpose of this section is to discuss the study findings and their relationship to the empirical and theoretical literature reviewed in Chapter Two. In this discussion, the researcher analyzes how the findings confirm or corroborate previous research, how the study diverged

from or extend previous research, what novel contribution the study adds to the field, and how the study sheds new light on the theory informing the topic.

Empirical Framework

Based on the empirical and theoretical literature presented in Chapter Two, *blended learning* has a long history of mixed definitions. However, the majority of researchers agree that blended learning program is a combination of asynchronous and synchronous learning. Most researchers also purported that blended learning is more effective at teaching compared to the TF2F. The current study examined if the theoretical and empirical evidence supported the assertion that the blended learning program is more effective than TF2F. Overall, the findings suggested that both learning programs are effective and each program faces challenges and opportunities.

One of the major reasons for the debated definition of blended learning is the evolving technology. Over the last few decades, technology has become a complex system of innovations. Each innovation has brought a new and unique feature of communication, which has affected the education sector and the workplace. Technology is changing faster than researchers can determine its effectiveness in the field of education. For instance, email brought the convenience to send and receive messages instantly, while Skype enabled online users to communicate one-on-one through video call—allowing for immediate feedback. Users of these technologies experience the necessity to improve the technology to fit the needs and demands on the ground. Similarly, the training programs used at Tobrikay Corporation change over time according to the needs of the users and developers. Tobrikay Corporation uses a total of 13 different training programs, each with a unique purpose and features to suit learners' needs.

Nevertheless, the different training programs at Tobrikay Corporation qualify the various definitions of blended learning. For instance, Poon (2013) and Yamagata-Lynch (2014) asserted that blended learning is a combination of TF2F and online instruction. In a matter of five years, this definition had become outdated, as live TF2F instruction can be conducted via the internet and the two parties can now be in different locations, interacting as if they were in the same geographical location. At Tobrikay Corporation, this combination occurs because out of the 13 different training programs, some are in-person, such as Live Instructor training, which trains virtually or in-person. Other programs are online, such as the Synchronous Virtual Training. Findings suggested that different SMEs and learners use a combination of different programs depending on which ones they find suitable and which they enjoy the most. Thus, based on this definition of blended learning program, it is clear that Tobrikay Corporation uses a newer blended learning model than the TF2F programs.

Other scholars purported that a blended learning program is one that utilizes multiple instruction methods (Oh & Park, 2009; Tayebinik & Puteh, 2012), while others claimed that blended learning utilizes multiple instructional modalities (Kim, 2013). Based on these definitions, Tobrikay Corporation represents a user of blended learning program since its 13 different training programs utilize multiple instruction methods as well as multiple instructional modalities. It is up to the learner to decide which and how many methods to utilize and the combination that works best for them.

Based on the definition by Means et al. (2013), a blended learning program must be cost–efficient so that Corporations, which are trying to reduce training cost, can use them. However, Tobrikay Corporation was not cognizant of which learning method was effective for learners. Tobrikay Corporation's decision to produce training material was based on meeting the needs of

the learners and not the most cost-effective method. Learners and SMEs clearly stated that they felt inundated with training materials and methods, leading to more frustration. Moreover, some of the teaching materials were so lengthy that they discouraged many learners from using them. This made the programs more costly for the organization based on the return benefit, rather a slower ROI. According to Means et al. (2013), for a blended learning program to be effective in the corporate sector, it must be able to save time, money, and resources. But this is not the case at Tobrikay Corporation, where the lengthy videos and learning options increase the cost for the organization, making it fall short of an ideal blended learning program.

Profit maximization is also essential for every organization, meaning blended learning programs are recommended because they help organizations achieve that goal. At Tobrikay Corporation, it was clear that the many learning programs that learners could choose did not help the organization maximize its profits. Instead, they demoralize a significant number of learners from partaking in them, leading to more incurred costs after investing in the software and other training resources. Thus, a good blended learning program should be able to perform more cost-efficiently than the TF2F program.

Another characteristic of a good blended learning program is its ability to offer the users flexibility, convenience, and availability. According to Tang and Chaw (2016), these three characteristics make blended learning more effective than TF2F, especially when combined with educational technology. This was also the case for Tobrikay Corporation, where most learners and SMEs preferred a blended learning program because it offered them the three benefits of convenience, flexibility, and availability. Nevertheless, learners and SMEs also maintained that the blended learning program could yield more positive results if it was improved to match what they needed, such as shorter videos and more interesting activities.

Considering the multiple definitions of blended learning, the researcher devised a standard definition to use in the study. In this study, blended learning refers to the combination of TF2F classroom instruction and ubiquitous broadband internet connectivity through a combination of synchronous and asynchronous programs and application, including Web 2.0 technology. The researcher will use these features to determine if the organization under study has or has not implemented the recommended blended learning program. Through the literature review in this study, the researcher found that Web 2.0 technology is one of the most advanced online technologies that allow social media interaction between teachers and students (Kale & Goh, 2014; Liu et al., 2016). Organizations that use this technology improve the interaction in their training programs, which is beneficial for increasing the positive outcomes of blended learning. Implementing Web 2.0 Technology could address the learners and SMEs complaints about a lack of interaction and engagement. The programs that the participants use may be synchronous and asynchronous, but they lack the Web 2.0 software which would help the organization increase interaction in its training programs. According to O'Reilly (2005), Web 2.0 is a program that continually updates its service as more people subscribe. This kind of software is what every organization needs as the workplace environment changes rapidly, requiring software that updates automatically based on users' needs.

Additionally, researchers have shown that the adoption of Web 2.0 is an effective way of reducing organization costs. Since cost reduction is one of the fundamental aims of every organization, this means that every blended learning program should include this software. Gingerich and Lineweaver (2014) found that the benefits of Web 2.0 outweigh its costs. Moreover, blended learning programs must also be able to reduce training costs for the organization. Thus, Web 2.0 is ideal software that could also help Tobrikay Corporation to cut its

costs. Currently, Tobrikay Corporation is struggling to keep up with the numerous but if it incorporates more Web 2.0, it could certainly cut unwanted costs while increasing the benefits.

Theoretical Framework

The current study incorporated several theories to explain the phenomenon of blended learning: andragogy theory, equivalency theory, and the theory of transactional distance. Andragogy theory represents an approach to teaching approach focused on adults. This approach emphasizes the important differences between adult-focused teaching compared to child-focused pedagogy. Knowles (1980) postulated that in a world of continuous change, adult learners need support for self-direction and resources to assist their learning. For this study, the Tobrikay Corporation supports self-direction and provides resources to their learners, though this study produced some new results related to andragogy.

First, andragogy offers unique challenges in identifying innovative and motivational means to deliver course information effectively. According to Knowles, Holton, and Swanson (2015), the andragogical approach to education understands that adults have a self-concept of accountability, and therefore, are capable of directing their own learning—unlike children. Therefore, children are told what to learn and how to learn, whereas adults want to direct the delivery of their courses. At Tobrikay Corporation, the learners determined their style of learning and made decisions on which training programs to purchase or invest in. Thus, trainers must listen to their adult learners and conform to their desires. The findings of this study confirm this theory of andragogy because the adult learners omitted those lessons, they found boring and attended those they found interesting. The majority of learners preferred blended learning, although there was discourse about the program.

The six assumptions for adult learning that Knowles et al. (2015) posited also informed the current study in terms of what the Tobrikay Corporation and other organizations that train adult employees should do. The first assumption is that adults have a need to learn and feel informed about the reasons for studying a particular course or topic. Tobrikay Corporation faced a similar challenge while training adults because the majority of learners skipped the asynchronous courses, meaning the learners did not understand their meaning or purpose. The problem was fueled by less-engaging methods of teaching that discouraged participation; notably, the learners could not ask questions about the specific training program and its purpose.

The second assumption of Knowles et al. (2015) relates to adult autonomy and holds that adults can make their own decisions without waiting upon the instructor to decide. Children, conversely, depend on their teachers to guide and structure their learning. Adult learners in this study behaved in the same manner. The adult learners did not depend on their instructors to decide the best combination of programs; rather, the learners would try different programs and settle on those they enjoyed or those that proved to be the most effective for them. Learners determined the training methods that their company would purchase, which combination they would use, and if they would maintain an on-going subscription to Tobrikay University.

The third assumption about andragogy theory of Knowles et al. (2015) holds that adults have a long experience in learning and this experience must be valued, lest they develop negative attitudes towards the learning, the teachers, or the course/program. At Tobrikay Corporation, most learners held negative perceptions and had negative experiences with some training programs and some SMEs, caused by long videos and SMEs that were not interactive.

The fourth assumption holds that adults are always ready to learn, and apply their knowledge in practice. This compliments their autonomy as the adult learners. At Tobrikay

Corporation, the learners knew that the information they gained would directly benefit their job duties. This was unlike teaching children who have no option but to follow the curriculum laid out before them. This assumption was consistent with Tobrikay Corporation's blended training program, where learners knew that they had to learn the software systems to find the most effective programs.

The fifth assumption about andragogy stipulates that adults want to learn what will assist them in their environment. If they find that what they are learning will not assist them in their environment, then they will look elsewhere. When a training organization fails to engage the students with programs that will assist them in their environment, the students will not enroll in the classes. At Tobrikay Corporation, many learners admitted to avoiding classes if they found them unaligned with what they want to contribute to society. Thus, it is imperative that designers of blended learning programs ensure that their programs match the needs of the targeted learners to avoid cases of dropping classes or being dormant in classes.

The last assumption of andragogy that informed this study stipulates that adults require internal motivation to work or study effectively, such as high self-esteem and job satisfaction. For this to work for adult learners, they must be enrolled in a synchronous online training or in-person training where the teacher commends the students so that they gain higher self-esteem. The participants of the study were generally unmotivated because they had low self-esteem. This means that Tobrikay Corporation should see to it that it not only ensures its learners are motivated, but also that all the other assumptions are also fulfilled for better outcomes of the blended learning program.

Overall, the blended learning program used at Tobrikay Corporation conforms to the assumptions of the theory of andragogy, which holds that children learn differently compared to

adults. However, it does not exclusively mean that the organization performs well. Out of the six assumption, Tobrikay Corporation performed well in nearly all of them. However, it does indicate that Tobrikay Corporation should reduce and modify their currently blended training program to consider the assumptions of the theory of andragogy. In other words, the organization should accept that their adult learners want autonomy, so they should try to respond to their preferences.

The second theory that informed this study was the equivalency theory, which holds that students should have equivalent learning experiences and produce equivalent outcomes regardless of their geographical location (Simonson, 1999). To achieve equivalency, trainers or teachers must alter the training methods to accommodate learners from different backgrounds. The main assumption for this theory stipulates that students are entitled to education that is adapted to the learner, regardless of the environment. Moreover, there is no one-size-fits-all approach to education, as every learner must obtain education that is customized to their understanding—whether that is TF2F or blended learning.

This study was consistent with the equivalency approach, as most SMEs did alter their live training based on the fact that learners had not accomplished pre-coursework. Overall, the program used at Tobrikay Corporation produced ambivalent results. The blended learning program was successful, and learners absorbed the material that was required of them, but they held negative attitudes towards training. This contrasted with Simonson (1999), who found learners had a positive experience towards blended learning.

The last concept that guided this research was the transactional distance learning theory (Moore 1993; Zhang, 2003). This theory is critical when designing any blended learning program for adults. Transactional distance theory identifies all the barriers to learning, which are

separated into four transactional relationships: student-teacher, student-content, student-interface, and student-student. Once educators identify transactional barriers, they can reduce them and improve learning. The largest transactional distance in this study was between student-teacher and student-content.

The transactional distance theory was critical in the study of SMEs' and learners' perception of the blended learning program. Tobrikay Corporation was not aware of the transactional barriers to learning. Moore (1993) postulated that educators could reduce transactional distance through dialogue, structure, and autonomy. One of the factors that impacted the distance between teachers and learners was communication, which Moore (1993) considered to be dialogue. When there is a breakdown in communication, the transactional distance between the teacher and the learner widens. The same problem was noted at Tobrikay Corporation mainly due to the low interaction between SMEs and learners, which in turn, contributed to transactional distance. To lessen the transactional distance between learner and instructor, Tobrikay Corporation would need to increase the interaction in their training program.

Another barrier in transactional distance, according to Moore (2003), is transactional distance between student and content. Tobrikay Corporation could reduce the transactional distance by simplifying the training structure and how the course is designed. The learners want short and interactive learning videos, which Tobrikay Corporation has and are well received by the learners. The problem is that learners are not exposed to this specific type of program until the majority of their training is complete. Tobrikay Corporation could reduce the transactional distance in two ways: introduce the short interactive videos before live training or turning the long asynchronous courses to short interactive training. This is consistent with Yilmaz and Keser

(2017), who found that synchronous learning environments help to reduce transactional distance. This would allow learning to be more effective at Tobrikay Corporation.

Identifying ways to reduce transaction distance is critical on two levels, for the corporation and the learner. Corporations can reduce the amount of training methods they offer, which leads to a reduction in costs and allows developers to focus on the programs learners want. Corporations can also benefit by reducing student-content transactional distance, as more users will want to maintain a subscription, resulting in more revenue for the corporation. From a learner's perspective, reducing transactional distance results in better preparation, more satisfaction, and better preparation to perform their job. A better prepared learner results in their company performing better and saving time and money.

There is very little research on means to reduce transactional distance in corporate learning programs. The current study is one contribution towards determining if blended learning is effective. Corporations have already moved to a blended learning format to reduce resources, as did the Tobrikay Corporation. Researchers need to identify the types of blended learning programs that are effective and increase those methods that produce positive results and decrease or improve the methods that are not effective for learners. This study is critical to current research as it identifies which methods are effective, which methods are ineffective, the ways to improve training, and reduce costs.

Implications

The findings of this instrumental case study have several implications for corporations, SMEs, instructors, instructional systems designers, learners, and other stakeholders involved in the corporations. The purpose of this section is to address the theoretical, empirical, and practical implications of the study.

Theoretical Implication

Tobrikay Corporation has created many different learning methods for the blended learning program to meet every learner's need. However, after an application of the andragogy theory, the corporation's efforts have had the opposite of the intended purpose and falls short on the theory of andragogy (Knowles, 1980). Corporations are focused on revenue and resources, they are not taking into consideration the needs of adults, and therefore, do not treat them as such. Although, Tobrikay Corporation meets the majority of the six basic assumptions, there is also room for improvement across all domains. Tobrikay Corporation learners have autonomy that allows the learn them to find the best combination of learning for themselves. Learners know the material will help them in their job and will allow them to perform better, but the motivational assumption is the key factor in providing better training. Motivation is a key to learning success; the SMEs and training products need to convey to students what is in it for them. Corporate learning often assumes that the learner knows why he or she is there and does not explain the motivation to the learner.

There are several steps necessary to avoid this problem of falling short of the andragogy theory. First, Tobrikay Corporation should design the learning program in a learner-centered approach, which changes the approach from *what am I teaching* to *what will they be learning.* Shifting the focus from the teacher to the learner gives the learners the autonomy to decide what they want. Next, in understanding the assumptions of andragogy theory, trainers may try to make it easier for the adult learners, such as by taking time to explain the purpose of the courses and how the learners may use the course to improve their skills for the benefit of their environment. Last but not least, the trainers should understand that adults learn differently from children in that they prefer customized programs that respond to their specific needs. Tobrikay Corporation

could achieve this is by implementing more Web 2.0 Software, with which the learners can personalize their experience and use features that address their specific needs.

Based on the results of this study, Tobrikay Corporation fell short of the equivalency theory. Equivalency theory requires trainers or software developers of training materials to consider that learners come from diverse backgrounds and that each should be attended to in an equivalent manner. In other words, no learner should find the program as alien or unable to match their needs because all programs should promote equivalency. To solve this problem, Tobrikay Corporation must ensure customization and personalization of its blended learning program targets all learners regardless of their backgrounds.

In any learning environment, students many face obstacles to learning. Obstacles to learning can include situations where a learner misinterprets a teacher's facial reaction to a question as negative and shut down. A learner could have issues with the learning software and cause frustration. A learner could feel isolated without other learners with which to interact. A learner could face obstacles if they do not understand technical jargon. These obstacles occur between students and teachers, students and other students, students and the content, or students and the software. This case study supports the transactional distance theory (Moore, 1993; Zhang, 2003), in that all learners experience some type of transactional distance regardless of the type of course taken. In this study, the transactional distance was typically the learner-teacher relationship and the learner-content relationship. Moore (1993) and Zhang (2003) agreed that once the transactional distance is identified, there are steps to lessen the distance or obstacles that learners experience. Transactional distance can be reduced several ways by both learners and SMEs. The learner-content transactional distance can be reduced by providing learners with short, chunked content before live training. SMEs agree that if the learners have content in the

format they desire, they will be better prepared for live training and eliminate the need for the SMEs to alter their live training at the last minute.

Empirical Implications

There are several qualitative studies on students' experiences and perceptions regarding blended learning or the effectiveness of blended learning programs. This study aimed at specifically identifying effective and ineffective types of blended learning for learners and SMEs. The 13 learning methods available through the Tobrikay Corporation software actually hindered the learning process and prevented the learners from receiving the best blended training program. Findings suggested that a significant number of complaints from both SMEs and learners. Nevertheless, learners and SMEs unanimously agreed that if the programs could be revised and improved, the learning experience would also improve and enable students to gain the desired skills.

Both learners and SMEs expressed dissatisfaction with the level of engagement applied in the combination of blended learning programs used. Some learners, for instance, found some instructors boring and not engaging. Others suggested that the learning software should include interactive features that keep the learner engaged and allow the learner to practice. SMEs agreed that more interactivity with students would be beneficial but did not know how to incorporate interactivity with the programs and struggled with limited resources and time.

Learners and SMEs both felt that Tobrikay Corporation should reduce their available training methods and focus on only a few different types. One learner was a training manager and redesigned the training for her company, because the training at Tobrikay Corporation was deemed too complicated and boring.

Practical Implications

The practical implications of the results of this study are specific areas in Tobrikay Corporation's blended learning program where reasonable improvements can be made. This step is necessary, as corporations have limited budgets and resources. Making recommendations based on unlimited resources is not practical nor useful. Tobrikay Corporation's goal of profit maximization and the ROI must be taken into account. Tobrikay Corporation maintains 13 different types of learning methods and this is extremely resource intensive. The recommendation is to reallocate the resources, eliminate ineffective methods, improve the remaining methods into a comprehensive blended learning program that learners and SMEs need.

Therefore, the first recommendation to improve the blended learning program is to increase engagement. The current live training component of the program does not need replacement, but rather, adjustments to improve the training and reduce obstacles learners face. Tobrikay Corporation has passionate and experienced SMEs that truly care about teaching. SMEs are subject matter experts in the software content, and most do not have any experience or training in instructional systems design. Yet, SMEs need to work with an instructional systems designer to add interactions to the live training. It would not require each SME to work with an instructional systems designer, it would require collaboration with one instructor and one designer to add interaction. By accomplishing this one task, it will also help the SMEs obtain feedback and increase interaction between learner and teacher, reducing the transactional distance two-fold.

Tobrikay University is a source of revenue for the company, which yields a great deal of capitalize. The second recommendation is to reduce transactional distance and improve the

learner's experience. This can be accomplished by eliminating the long, non-interactive asynchronous courses at the university that learners take before the live training. Learners do not have the time nor the stamina to attend 40+ hours of recorded training before they attend live training. Tobrikay University consists of training sessions recorded by SMEs. This recommendation will result in SMEs taking the time to record Webex training. By eliminating the Webex sessions SMEs save valuable time, thus saving resources. The long, non-interactive asynchronous Webex sessions should be replaced by short, interactive asynchronous training. This training already exists at Tobrikay Corporation in the form of their Help Files, which were well received by the participants. Tobrikay Corporation already invests in the learning software to create the Help Files, this would result in little to no additional resources. The Help Files would need to be remain in the Help Files for learner's reference, but also be repurposed as pre-training. As the Help Files are updated, the pre-training courses will require updating to eliminate the need for additional resources. This will not result in any additional resources to the company. However, replacing the paid non-interactive courses with free interactive courses will not encourage more revenue, which leads into the next recommendation.

The next recommendation applies to Tobrikay University as well. Students want customization of the learning products. Offering live custom courses will encourage learners to maintain their subscription to the university and will offset the additional resources needed to design and implement the courses. Offering live customized courses meets the needs of the learners in two ways. First, learners want a customized training product as a result of paying more money to have customized software, as opposed to off the shelf software. Second, this will encourage peer to peer learning. Tobrikay Corporation currently lacks quality learner-learner relationships, creating greater transactional distance. Incorporating peer to peer learning will

reduce the transactional distance and provide the learners a better learning experience. Live customized courses also benefit Tobrikay Corporation as the organization can receive feedback from learners about the software and/or training, thus allowing Tobrikay Corporation to improve training. Tobrikay University provides the greatest ROI dollar for dollar. Another way to increase or maintain enrollment is to offer expert level asynchronous courses. These courses may only apply to a few individuals at each organization, but Tobrikay Corporation can maximize the asynchronous factor and take advantage of a few people from many organizations.

The blended learning program at Tobrikay Corporation can be improved by integrating Web 2.0 technology. This technology is an advanced online program that increases interaction between teachers and learners and between learners and learners. The software is mainly used for social interaction purposes, but has been widely applied in the education sector where it has been used to train employees. The literature review revealed several benefits of Web 2.0 Software that can also benefit Tobrikay Corporation and its blended learning program. The definition of blended learning adopted for this study holds that Web 2.0 software should be inclusive of the synchronous and asynchronous training.

Learners requested peer to peer learning and increased interaction. Web 2.0 software was solely designed to help users interact with one another, which makes it ideal for education purposes, especially where the training is done online. The software is built with network structure and architecture of participation, which allows users to obtain information from other users as well as participate in live discussions. Incorporating Web 2.0 software would allow learners to collaborate with each other and discuss questions they may encounter. This form of collaborating socially would reduce the questions instructors would have to research and answer. This would also allow Tobrikay Corporation to see commonly addressed concerns from learners.

Another benefit Tobrikay Corporation could reap from including Web 2.0 in its blended learning program is specialized features that make the software interesting and engaging to users. According to Laudon and Loudon (2012), besides the interactivity feature, Web 2.0 also includes real-time user control, user-generated content, and social participation or sharing features. These help in engaging users, and in turn, avoiding unwanted feelings like boredom and fatigue. Moreover, the sharing component of Web 2.0 allows users to message in different formats, such as images, photos, comments, and emojis. Social platforms such as Facebook and Twitter utilize these features, which makes these social platforms very popular across the world. Thus, if Tobrikay Corporation could utilize more Web 2.0 software, it would improve not only the interaction, but also the experience of users and enhance the learner experience with the program. With Web 2.0 in place, it is highly likely that the programs would be more interesting, enabling the company to register high motivation and improved perception towards the blended training programs.

Researchers have recommended the use of Web 2.0 in classroom discussion and learning (Kale & Goh, 2014). Web 2.0 is easy to use and includes special features that can be applied in learning. These features include; podcasts, RSS feed vlogs, blogs and wikis—among others. Lewis et al. (2013) further suggested that Web 2.0 helps increase student outcomes owing to its applications that foster user success. These applications include peer-to-peer communication, community engagement, collaboration, and digital convergence facilitated by shared content. These features make Web 2.0 an all-encompassing software, and fusing TF2F with Web 2.0 would make a more effective blended learning program.

The trainers can help the designers to design the learning programs to ensure that the end product has features that will help trainers in their work. The findings of this study revealed that

some trainers have ideas about effectively training learners but lack the means to deliver these reforms. One of the barriers to effective training is the failure to involve trainers in the software development process, where the SMEs can offer their suggestions and ideas based on experience. Such guidance would also help cut costs because only a few programs would be developed instead of many that are not effective.

Failure to use Web 2.0 at Tobrikay Corporation also denies the organization the opportunity to enjoy the benefit of customizing the content so that each learner and teacher feels comfortable using a program that conforms to their unique needs. According to Taylor et al. (2018), Web 2.0 facilitates the tailoring of instructions and commands to suite user preferences, which helps in delivering the right content to the user. In addition, by storing user information in its database, the Software helps in tracking classroom behavior, enabling trainers to determine how to approach the class and how to engage them for the best outcomes. In fact, Davis (2003) argued that Web 2.0 is not just a new platform, but a shift in the minds of users, especially teachers and learners due to the flexibility it offers and the ability to connect students and teachers from across the globe.

The same guidance may be enquired from the learners, who are arguably the most important stakeholders in the training because they know what works best for them and what does not. This study showed that the majority of the learners feel that the existing learning programs are not effective enough for them due to various reasons, including long videos, boring teachers, and too many programs. Thus, the learners can also be consulted so that they can offer their recommendations to make the learning programs more effective. The impact would also be felt by the organization because the learners would be more willing to learn, which would in turn, increase their skills. They would then apply these skills to the organization to help it make

more money. When learners are interested, they ensure smooth learning process and help reduce the learning time.

Delimitations and Limitations

Delimitations are purposeful decisions the researcher makes to limit or define the boundaries of the study. Limitations, on the other hand, are potential weaknesses of the study that cannot be controlled. They may be related to the design, the analysis, or the sample. This section describes the rationale behind decisions made to limit or define the scope and focus of the study. There were several considerations in this case study to define its scope. First, the sample size for a case study was small to generalize as a whole. The researcher purposefully selected a sampling criterion of maximum variation to ensure a wide representation to share their perceptions and experiences. The researcher recruited participants based on their experience with both blended learning at Tobrikay Corporation and the purchase of the software. Learners and SMEs at a different corporation would have a different experience and a different combination of blended learning. Another delimitation of the study was the time span in which the interviews took place and the limited amount of time per interview, even though saturation was achieved early in the study.

The first limitation of the study was that it provided rich descriptions of many facets of a blended learning program, but only at a single corporation. The decisions of the researcher encompassing the framework of the study, the participants, observations, interviews, focus groups, and data reviewed affected the content of the data gathered. Generalization of the findings to a larger population was not the aim of this study, rather, the focus was to gain a deeper understanding of the participants' feelings and experiences as they pertained to a combination of blended learning used in Tobrikay Corporation's program.

Another limitation of this study surrounded the data collection process. Some participants were unable to participate due to availability issues. The participants' responses in their interviews were limited to their perspectives and experiences. The fulcrum of this qualitative case study was contingent upon learners and SMEs being honest and forthcoming in their experiences and perceptions with the blended learning program at Tobrikay Corporation. However, this was largely minimized by the study's triangulation of data. Learners and SMEs may not be fully honest with their experience and may have biases against the software and/or training.

Recommendations for Future Research

In consideration of the study findings, limitations, and the delimitations placed on the study, this section provides multiple recommendations and directions for future research. It includes an argument for what topics and populations should be studied, along with specific types of designs that should be employed. The study findings, limitations, and delimitations have revealed that further research is necessary. Future researchers should first validate the findings of the current study; second, enhance and corroborate the findings of the current study; and third, to expand the findings and outcomes of the current study. As discussed in the previous section, the study faced several delimitations and limitations, which will help provide direction for future research.

The sample size was quite small (n = 15) and might have significantly impacted the findings. Although the sample size was acceptable due to the data collection methods selected, future studies can use a larger sample size to obtain a more comprehensive report. In addition, future studies could use questionnaires, which might improve the quality and validity of the studies, especially by exploring the theoretical construct (Bolarinwa, 2015). A larger sample size

would also help improve representation of a whole population unlike when the sample size is small. The upwards of $n = 100$ is recommended for future studies which might be interested in the same study area. For the second delimitation of selecting participants, future studies can add inexperienced participants; that is, participants who do not necessarily have experience with blended learning programs. Researchers should focus on new users who can report on how complex or simple the programs are to understand and use. They could also focus on specific age groups or targeted aged groups.

Based on the first limitation of the study by focusing on only one corporation, future studies can attempt to improve findings by utilizing multiple corporations and compare findings across the different organizations. This may help in increasing reliability and accuracy of the future research findings. Moreover, since the aim of this study was not to generalize the larger population, but to gain insight into the perceptions of participants towards blended learning, future studies can focus on generalizing the population. This would help expand the body of knowledge in this field. The key in any research on blended learning programs in the corporate sector is to identify the specific methods of learning combinations use and evaluate that combination.

To overcome the challenge of participants failing to complete the study, future researchers should select a larger population so that if some fail to participate, there are more to replace them. Random systematic sampling techniques can be helpful to obtain targeted participants, but in a way that reduces bias. Future researchers can also enhance their studies by incorporating both qualitative and quantitative designs—unlike the current study which focused only on qualitative research. A mix of qualitative and quantitative design can help yield more accurate findings, as the researcher does not only rely on qualitative theoretical data, but also

scientific numerical data that five c clearer scenario of a problem. The current study used qualitative thematic code method to analyze the data, but future researchers could utilize scientific models like the Likert Scale, or the Statistical Package for the Social Sciences (SPSS) for the purpose of data analysis. These methods are more accurate if fed the correct information and help in presenting data in mathematical language using percentages and numbers for easier comprehension.

Summary

From the implications section, this summary reiterates the results of this research. The study findings and the implication section show interesting facts about blended learning at Tobrikay Corporation. Although a big company, its blended training programs require modification if the company wants to reduce costs while training and maximize profits. Currently, the company is struggling to use a total of 13 different training programs which are TF2F, synchronous, and asynchronous programs. However, these programs fail to meet the required standard suggested in past studies and research. For instance, Tobrikay Corporation fails to conform effectively to the theories of andragogy and the equivalency theory. As a result, learners and SMEs have negative perceptions and attitudes towards the blended learning program at Tobrikay Corporation.

However, to overcome those shortcomings, several measures that different stakeholders should take were addressed. First, Tobrikay Corporation should increase interactivity in its blended learning programs to avoid negative perceptions. The researcher introduced several methods to increase interaction between SMEs and learners. One way is by focusing on synchronous programs, which encourage discussions among peers and interaction with SMEs. Adopting Web 2.0 is another way as this software enables interaction among users. Additionally,

the software could help reduce boredom, help in meeting the andragogy assumptions, improve equivalency, and help in reducing transactional distance. Thus, Tobrikay Corporation should conduct an overhaul of its training programs and adopt a blended program that includes Web 2.0 Software.

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APPENDIX A: RECRUITMENT E-MAIL

To: [Potential Participant]

From: Angela M. Andrews: Doctoral candidate at Liberty University

Subject: The purpose of this study is to explore the perceptions and experiences of learners and teachers engaged in training to use Tobrikay Corporation's software system.

Body: Dear Learner/SME:

As a graduate student in the School of Education at Liberty University, I am conducting research as part of the requirements for a Doctor of Education Degree. The purpose of this qualitative case study is to explore the perceptions and experiences of learners and Subject Matter Experts at Applied Systems Corporation regarding software systems training in a blended learning environment, and I am writing to invite you to participate in my study.

If you are a former or current learner, 18 years of age or older, have used the Epic software, and have taken part in both the online training and the in person training, and are willing to participate, you will be asked to be observed completing the training for approximately two to three hours. You will also be interviewed, which should take about an hour. You may be selected for a focus group that should take approximately two to three hours. You will then be asked to review the transcription for accuracy, which should take approximately 20 minutes. Your name and/or other identifying information will be requested as part of your participation, but the information will remain confidential.

If you are a SME, you must have taught an in-person course. You will also be interviewed for about an hour and may be selected for a focus group that should take an additional two to three hours. You will also review the transcription to ensure accuracy, which should take approximately 20 minutes. Your name and/or other identifying information will be requested as part of your participation, but the information will remain confidential.

To participate, please sign and return the attached consent document via email. The consent document contains additional information about my research. After you have returned the signed consent form, please contact me to schedule an interview at 910.391.6254 or angelamAndrews@yahoo.com

Sincerely,

Angela M. Andrews
Curriculum Designer
Email: angelamAndrews@yahoo.com

APPENDIX B: INFORMED CONSENT FORM

You are invited to take part in a research study aimed at understanding and improving Tobrikay Corporation's software user training process. The research is being conducted by Angela M. Andrews, a PhD candidate at Liberty University in partial fulfillment of the requirements for the degree of Doctor of Education.

Background Information:
The purpose of this study is to explore the perceptions and experiences of learners and teachers engaged in training to use Tobrikay Corporation's software system.

Procedures:
If you agree to be in this study, you will agree to:

- Participate in a 30 to 60 minute interview, and
- Participate in a 30 to 60 minute focus group.

Voluntary Nature of the Study:
This study is voluntary. You are free to accept or turn down the invitation. No one at Liberty University, or Tobrikay Corporation, will treat you differently if you decide not to be in the study. If you decide to be in the study now, you can still change your mind later; you may withdraw at any time.

Risks and Benefits of Being in the Study:
Being in this type of study involves some risk of the minor discomforts that can be encountered in daily life, such as minor risks, such as fatigue, stress or becoming upset. Being in this study would not pose risk to your safety or wellbeing.

One potential social benefit from the proposed study may be a better understanding of the impact of combining in-person and online teaching methods for software training.

Payment:
No remuneration is available for participation.

Privacy:
Results of this study will not identify individual participants. Details that might identify participants, such as the location of the study will not be shared. Data will be kept secure by password protection, data encryption, and use of codes in place of names. Data will be kept for a period of at least 5 years, as required by the university.

Contacts and Questions:
You may ask any questions you have now. Or if you have questions later, you may contact the researcher via email at angelamAndrews@yahoo.com, or phone xxx-xxx-xxxx. If you want to talk privately about your rights as a participant, you can call the Research Participant Advocate at my university at xxx-xxx-xxxx.

Please print or save this consent form for your records.

Obtaining Your Consent

If you feel you understand the study well enough to make a decision about it, please indicate your consent by selecting "I agree" below.

__ I agree.

_____ _____

Signature Date

APPENDIX C: OBSERVATIONAL PROTOCOL TEMPLATE

Location:	Company:
Date:	Time:
Descriptive Notes:	Reflective Notes:
The learner is at a small size office consisting of X amount of employees. The learner is taking the following courses X and X. The learner is taking the training at their computer. I will describe the setting and surrounding they are taking the training.	

APPENDIX D: SEMI-STRUCTURED INTERVIEW QUESTIONS

1. Can you please introduce yourself? What is your current role?
2. How comfortable are you with Tobrikay Corporation's software: not at all, somewhat, comfortable, or very comfortable?
3. What do you think of when I say the following words:
    a. Live Instructor Virtual Training via Webex.
    b. Applied University recorded Webex webinars training.
    c. Flash tutorials.
    d. Office Hours.
    e. Private Training.
        i. Virtual
        ii. In-person
    f. Post activation support.
    g. Private Support.
    h. Workflow documents.
    i. Handouts.
    j. The software.
    k. Dummy database.
    l. Help file.
4. How comfortable are you with online learning: not at all, somewhat, comfortable, or very comfortable?
5. Have you taken any courses online? If so, how was that experience?
6. Can you explain to me the term blended learning?

7. Do you have a preference for online, in person, on the job, or blended learning?
8. How long have you been using Tobrikay Corporation's training?
9. What was your experience with Tobrikay Corporation's online training?
    a. On average a Webex session could run 60 minutes, what are your thoughts?
    b. What did you like most about the online training?
    c. What did you like least about it?
    d. Do you feel that you can take the online training and replicate what you have learned?
        i. Why/Why not?
    e. What are the factors that influenced you the most?
    f. How was the pace?
10. What was your experience of Tobrikay Corporation's in person training?
    a. What did you like most about the in person training?
    b. What did you like least about it?
    c. What are the factors that influenced you the most?
11. What was your experience of Tobrikay Corporation's blended training, the combination of learning online, learning face to face?
    a. What did you like most about the blended learning at Tobrikay Corporation?
    b. What did you like least about it?
    c. What are the factors that influenced you the most?
12. In reviewing the three ways Tobrikay Corporation trains, which method do you prefer and why?
13. Which method do you think was most effective and why?

14. In what ways do you think Tobrikay Corporation could improve training?

15. Do you have any other feelings or experiences you would like to share?

APPENDIX E: LEARNER FOCUS GROUP QUESTIONS

1. Before we get started, does anyone have any questions?
2. What do you think of the current blended training program at Tobrikay Corporation, the combination of online and traditional face to face?
    a. Is it effective?
3. Now that everyone has had a chance to think and reflect about what was previously asked, did anyone provide different feedback to me compared to the feedback surveys they provided?
    a. Why?
4. Which do you think is the least effective way Tobrikay Corporation trains?
    a. Why does it matter to you?
    b. What was challenging?
5. What is the most effective way Tobrikay Corporation trains?
    a. Why do you prefer that reason?
6. What do you wish Tobrikay Corporation would do differently regarding their training?
7. What do you wish Tobrikay Corporation would improve regarding their training?

APPENDIX F: SUBJECT MATTER EXPERT FOCUS GROUP QUESTIONS

1. Before we get started, does anyone have any questions?
2. What do you think of the current blended training program at Tobrikay Corporation, the combination of online and traditional face to face?
    a. Is it effective?
3. Are learners learning from the online component?
    a. Why/Why not?
    b. What makes you think that?
4. What is the biggest complaint you hear from learners?
5. What is your biggest challenge from training?
    a. Either online/in person?
6. How could the company improve their training?
7. How could the learners improve their learning?