THE PREDICTIVE RELATIONSHIP BETWEEN TEACHING EXPERIENCE
AND WORK ABSORPTION, WORK ENJOYMENT,
AND INTRINSIC WORK MOTIVATION

by

Jin Kim Chang

Liberty University

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

Liberty University
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APPROVED BY:
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The purpose of this bivariate linear research design study was to discover if there was a predictive relationship between the experience of teachers working in General Education Development (GED) programs and the presence of work absorption, work enjoyment, and intrinsic work motivation. A teacher shortage was on the rise and a different perspective using the theoretical frameworks of flow and growth mindset brought about further dialogue in addressing the situation. The preeminent theory used in this dissertation was flow theory, which was comprised of nine components. This dissertation focused on the three components of flow theory emphasized in the Work-Related Flow (WOLF) inventory that embodied work satisfaction and work motivation in: (1) work absorption, (2) work enjoyment, and (3) intrinsic work motivation. The WOLF inventory and participant demographics were administered and collected virtually to a convenience sample of 112 teachers of GED programs in Virginia and North Carolina. This research was a quantitative bivariate linear regression design, and the information was evaluated to see if there was a predictive relationship between years of teaching and the three criterion variables of flow in the WOLF inventory. The predictor variable was the number of years teaching, and the three criterion variables of flow were: work absorption, work enjoyment, and intrinsic work motivation.

There were three research questions. The researcher failed to reject null hypotheses one, two, and three indicating there was no significant predictive relationship between the experience of teachers working in GED programs and the presence of absorption, work enjoyment, and intrinsic work motivation. Recommendations for future research included conducting qualitative research among the participants and expanding the research to mainstream schoolteachers.

*Keywords:* flow, growth mindset, giving, GED, teacher satisfaction, teacher retention
Dedication

Praise God, who choreographed every minute detail of my life and this dissertation. It takes a community to complete a dissertation, and God brought the right people and circumstances to bring this endeavor into fruition. The beginning of my studies was just as magnificent as the end of the journey. We traveled as a family for over 24 hours from the mission field, with two of my children being teenagers and one being an elementary student. The next day I was walking into the welcome center at Liberty University and finalizing the paperwork to begin my studies. These past five years have been a process of transitioning from the mission field that God designed in His perfect way. May the life He has given me be shared to nurture others and may everything I do be dedicated to Him!
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List of Abbreviations

Coronavirus Disease 2019 (COVID-19)

English as a Second or Other Language (ESOL)

European Flow Researchers Network (EFRN)

General Education Development (GED)

Self-Determination Theory (SDT)

Virginia Department of Education (VDOE)

Work-Related Flow Inventory (WOLF Inventory)
CHAPTER ONE: INTRODUCTION

Overview

The purpose of this bivariate linear regression design study was to describe teaching through the setting of educators of students in the General Education Development (GED) program to further understand teachers’ flow experiences evidenced in work absorption, work enjoyment, and intrinsic work motivation. The predictor variable was years teaching, and the three criterion variables were levels of flow. Chapter One provided background information for the topics of the teaching workforce, teachers of students in the GED program, teacher motivation, years of teaching, and the theoretical frameworks. The problem this study addressed was a gap in the literature related to the predictive relationships among the number of years of teaching experience among educators of the GED program and levels of flow. Included in this chapter was the purpose of this study, followed by the significance of recent studies. This chapter ended with the research questions and key definitions for this study.

Background

Historical Overview

Research has revealed a teacher shortage in America, indicating a weakness in the education system and a need for new retention methods (Ingersoll et al., 2017, 2018; Jones & Watson, 2017; Krasnoff, 2014; Lambersky, 2016; Lochmiller et al., 2016; McCreight, 2000; Silva et al., 2015). Research showed the two strongest motivators for teacher retention were quality professional development and a good relationship with their administrator (Deci & Ryan, 2000; Jones & Watson, 2017; Lochmiller et al., 2016; Silva et al., 2015). Unfortunately, teachers who continued to contribute through their profession did not present a problem and were oftentimes overlooked. This research added to the scholarly literature of why teachers remained in the teaching profession, with a potential emphasis for quality
professional development by using the theoretical frameworks of flow and growth mindset, in order to gauge the extent to which flow attained through years of teaching was a motivating factor in persistence in the teaching profession (Csikszentmihalyi, 1975, 1990; Deci & Ryan, 2000; Duckworth, 2016; Dweck, 2016; Jones & Watson, 2017; Lochmiller et al., 2016; Silva et al., 2015).

**Society at Large**

A look at the teaching profession was relevant because currently, “public school teaching has become the most controversial profession in America” (Goldstein, 2014, p. 1). Catherine Beecher and Horace Mann were crucial in defining public education and public education teachers in America (Goldstein, 2014). In 1815, there were very few public schools, and only 10% of women worked for wages outside the home (Goldstein, 2014). Beecher suggested using female teachers as an affordable option for public schools, and educated females saw the opportunity to teach as a viable means for income (Goldstein, 2014). Thus, the trend of depending on the female population as a major contributor of the teacher workforce took root and was consistent, whereas other aspects of the American education system have swayed from one educational focus to the next (Goldstein, 2014; Ingersoll et al., 2017, 2018; Ravitch, 2001). Sizer (1992) asserted that with every change in education, the workload of the teacher became greater, which led to overburdened teachers compromising their passion to mold themselves into the profession just to survive. The consistent availability of the female workforce in the teaching profession brought about a skewed excess supply that allowed administrators and policymakers to continue with the process of overburdening teachers (Goldstein, 2014). Things have changed.

Part of the reason for the current teacher shortage was that women now had other professional options to pursue (Asher, 2014; Gardner, 1991; Ingersoll et al., 2017; Sandberg & Scovell, 2013; Stanny, 2014). Sandberg, who was included in *TIME 100: The Most
Influential People list for her work on encouraging women to enter the workforce in her book, *Lean In*, represented the current support system for women at work (Sandberg & Scovell, 2013). This trend of women entering the workforce beyond teaching had a high likelihood of increasing and thus diminishing the pool of female applicants to the teaching profession (Ingersoll et al., 2017). Albert Einstein’s (2015) definition of insanity was to continue doing the same thing over and over in hopes of achieving a different result (as cited in Tetlock & Gardner, 2015; Taylor, 2019). Rather than continue in this same educational process of assuming there would be a continual supply of qualified teachers as in the past, a shift of how teachers were being treated and how to retain them was explored (Gardner, 1991; Weisberg et al., 2009).

When the educational arena had a strong monopoly on the female workforce, there were demands that could have been given towards teachers because of the stream of willing applicants (Goldstein, 2014). However, for the educational arena to maintain a strong workforce, a disruption from the historical tendencies of treating individual teachers as widgets with unappreciated inordinate workloads needed to take place (Freire, 1968/2018; Sizer, 1992; Weisberg et al., 2009). An emphasis on how to give and take by listening to teachers and their levels of flow needed to be addressed (Bakker, 2008; Csikszentmihalyi, 1990; Grant, 2013; Newport, 2016; Smith, 1776/2007).

**Theoretical Background**

Positive psychology was the fourth wave of psychology that focused on curbing maladaptive behavior by focusing on the positive (Lomas, 2016; Seligman, 2006; Seligman & Csikszentmihalyi, 2000). Rather than being at a point of helpless complaining, observing the teaching profession through the theoretical frameworks of flow and growth mindset aided in addressing the educational arena, which was replete with limited resources (Csikszentmihalyi, 1975, 1990, 1997, 2012; Seligman, 2006). Being aware of what teachers
were thinking and enjoying while attempting to grow from that awareness with a giving heart
was the combination of the two theoretical frameworks, flow and growth mindset, used in
this dissertation (Csikszentmihalyi, 1975; Dweck, 2006; Grant, 2013; Meyer, 1995).

Csikszentmihalyi (1975) originally called the concept of flow the autotelic
experience, but discovered through qualitative interviews the native category, flow, which
was the term interviewees used in describing their experiences (Buckley & Chapman, 1997;
Csikszentmihalyi, 1975). Flow, the preeminent theory, was a theory on adult play or
enjoyment (Biasutti, 2017; Demerouti & Mäkikangas, 2017; Grant & Osanloo, 2014) and
was defined as, “the state in which people are so involved in an activity that nothing seems to
matter, the experience itself is so enjoyable that people will do it even at great cost, for the
sheer sake of doing it” (Csikszentmihalyi, 1990, p. 4). Flow was characterized by nine
components: concentration or absorption; control; merging of action and awareness; autotelic
experience or intrinsic motivation; loss of self-consciousness; loss of time; goals, or
enjoyment of (in the case of this research) work; feedback; and balance of challenge and
skills (Csikszentmihalyi, 1993; Moneta, 2012). Csikszentmihalyi (1975) originally used the
concept of flow for chess players, rock climbers, rock dancers, and surgeons to show how
flow was manifested in various ways depending on the activity of involvement.

Csikszentmihalyi (1975) built on the theories of Maslow’s hierarchy of needs and Callois’
central human needs to develop flow. Currently, artists, athletes, businessmen, psychologists,
and many more fields adopted the concept of flow to influence and inspire those in their field
(Csikszentmihalyi, 2012; Delle Fave & Massimini, 2003; Engeser, 2012; Harmat et al., 2016;
Seligman & Csikszentmihalyi, 2000). Flow was surprisingly found more often in work and
areas where individuals were challenged to engage actively in tasks that required individuals
to develop skills (Csikszentmihalyi, 1975, 1990). Those who lived an autotelic life found
greater engagement or flow in other aspects of their life as well (Csikszentmihalyi, 1997;
Kubey & Csikszentmihalyi, 1990). Understanding autotelic engagement amongst teachers serving GED programs was why this research placed flow theory as the preeminent theoretical framework (Baumann, 2021; Csikszentmihalyi, 1997).

To be at a point of flow, or sublime absorption, required a match between skill level and opportunity with frequent feedback for the individual (Csikszentmihalyi, 1975; Fong et al., 2015; Weisberg et al., 2009). Discipline and time were also required to acquire the skills to engage in an activity to this level of flow (Csikszentmihalyi, 1990; Ericsson & Pool, 2016; Gladwell, 2013). Achieving a certain level of feedback and acquired skills in the teaching profession required time. Therefore, this research attempted to describe the correlation of the number of years teachers of the GED program taught to achieve a certain level of self-assessed flow in their teaching (Adult and Continuing Education of Central Virginia, 2019; Csikszentmihalyi, 1975; Huette et al., 2016; Wolfigiel & Czerw, 2017).

The second theoretical framework, growth mindset, was from the domain of positive psychology and was in alignment with the autotelic personality that embraced challenges (Csikszentmihalyi, 1990; Dweck, 2006). Kubey and Csikszentmihalyi (1990) acknowledged that those who chose to participate in active versus passive events had higher levels of flow in their lives (Dweck, 2006). This engaging in active events was what Dweck (2006) included in her definition of a growth mindset. To arrive at teacher satisfaction required perseverance, autotelic enjoyment, and a pivoting, morphing, or growing (Csikszentmihalyi, 1975; Dweck, 2006; Tetlock & Gardner, 2015). Growth mindset was the attitude of taking on the harder challenge (Dweck, 2006). Teaching was described as a profession for those who wanted to take on a harder challenge that required perseverance and had a great deal of obstacles (Csikszentmihalyi, 1990; Dweck, 2006; Duckworth, 2016; Gardner, 1991).

Another concept included in the research was giving (Grant, 2013). Beyond autotelic enjoyment and pivoting to grow, there was exploration as to the understanding of the purpose
of life and contributing or giving to the community (Csikszentmihalyi, 1975, 1997; Duckworth, 2016; Dweck, 2006; Grant, 2013; Hur et al., 2018). Giving and receiving were important components of the teaching profession that provided a stronger motivation to persist (Duckworth, 2016; Grant, 2013). Grant (2013) categorized personality dispositions into three categories: givers, matchers, and takers. Those who were givers were at the top 15% and bottom 15% of income earners. In other words, there was a correlation between those who gave and finances, but one did not know whether a giver landed in a favorable or unfavorable extreme. Pronoia is the opposite of paranoia. When individuals gave, pronoia occurred, in which givers thought people were saying nice things about them and were plotting to do nice things. Administrators, teachers, and students were the backstory for teachers, and the concept of giving and how each group in the educational arena participated in giving was analyzed (Grant, 2013).

**Problem Statement**

The problem this study addressed was teacher motivation and a gap in the literature related to the predictive relationship with the number of years teaching among teachers serving GED programs and levels of flow (Bakker, 2008; Csikszentmihalyi, 1975; Moneta, 2012). There was a need to understand teacher retention and how to understand the emotional state of teachers through two positive psychology theoretical frameworks, flow and growth mindset. These theories helped frame the intersection of teacher satisfaction and positive psychology (Csikszentmihalyi, 1975; Dweck, 2016; Seligman, 2006). Positive psychology emphasized psychological research in curbing maladaptive behaviors by focusing on positivity rather than focusing on dysfunctional behaviors (Seligman, 2000; Seligman & Csikszentmihalyi, 2000). There was a gap in the research about the topic of education and positive psychology (Ingersoll et al., 2018; Seligman & Csikszentmihalyi, 2000; Sizer, 1992; Sterke et al., 2015). Flow was developed by Csikszentmihalyi (1975), who also co-authored
the article initiating positive psychology with Seligman (2000). The theory of flow was used as a tool to view the educational workforce in a manner to promote positive change (Csikszentmihalyi, 1975). There was also a further gap in the literature about GED programs (Jepsen et al., 2016; Tyler & Lofstrom, 2010). Combining these two gaps in the literature, positive psychology and education within the setting of the GED program, this research utilized the current surge in literature among collective flow theory to bring about an avenue in which to view the educational workforce (Ilies et al., 2017; Zito et al., 2019; Zumeta et al., 2016).

The setting of teachers in the GED program was ripe for research on educators. There was a population of students that had one quantitatively-achievable goal of passing the GED exam (Adult and Continuing Education of Central Virginia, 2019; Virginia Department of Education, 2020). Teachers were given thorough feedback about their task through documented progression of students and trying to teach to students who have had an educational setback in the past and brought the right amount of challenge (Beard, 2015; Csikszentmihalyi, 1975; Fong et al., 2015). Teachers were involved in teaching students in the GED program and felt a purpose in what they did (Brooks, 2015; Damon, 2008; Goldstein, 2014; Hur et al., 2018; Warren, 2006). Teachers in the GED program had different combinations of challenges and skill levels required that allowed for a level of teacher satisfaction that could have potentially led to retention among many teachers (Gardner, 1991; Ingersoll et al., 2018; Sizer, 1992). The issue of teacher retention had been addressed through factors, such as the dynamics of administrators and teachers, pay, and workload (Jones & Watson, 2017; Krasnoff, 2014; Lambersky, 2016; Lochmiller et al., 2016; Silva et al., 2015). However, there was a gap in the research among intrinsic work motivation of teachers who remained in the teaching profession (Bakker, 2008; Csikszentmihalyi, 1975; Deci & Flaste, 1995; Deci & Ryan, 2000; Knight & Waples, 2017; Renninger & Hidi, 2016).
The goal of positive psychology was to curb maladaptive behavior by thinking positively about a situation (Seligman & Csikszentmihalyi, 2000). This maladaptive situation, teacher shortages, was a needed area of research (Ingersoll et al., 2017). This research strived to add to the existing literature an understanding of the backbone of the education system, teachers, number of years teaching, and levels of contentment through the theoretical frameworks of flow and growth mindset (Csikszentmihalyi, 1975; Dweck, 2006).

Delle Fave and Massimini (2003) conducted a study among Italian teachers and found that 90-100% of teachers felt flow in their lives with the main source of flow being outside of their profession (Olcar et al., 2019). According to Csikszentmihalyi (1997), individuals who had flow in one area of their lives had flow in other areas of their lives, too. Therefore, teachers who had flow in their personal lives also had higher levels of work absorption in their professional lives (Csikszentmihalyi, 1997). With this understanding in mind, this research addressed the problem of the gap in the literature that had not adequately addressed the predictive relationship between work absorption, work enjoyment, and intrinsic work motivation and teaching experience among teachers serving GED programs (Bakker, 2008; Csikszentmihalyi, 1975; Moneta, 2012).

**Purpose Statement**

The purpose of this bivariate linear research design study was to describe teaching through the setting of educators of students in the GED program to bring further understanding of a teacher’s flow experience evidenced in work absorption, work enjoyment, and intrinsic work motivation (Bakker, 2008; Csikszentmihalyi, 1990). Looking at the predictor variable, years teaching, and the criterion variables, flow shown in work absorption, work enjoyment, and intrinsic work motivation, this quantitative research attempted to gauge a predictive relationship through three separate bivariate linear regression analyses between these variables (Bakker, 2008; Csikszentmihalyi, 1975; Gall et al., 2007). Work absorption
was defined as how teachers rated the extent to which “they are totally immersed with their work” (Bakker, 2008, p. 401). Work enjoyment was defined as feeling good and being happy or the emotional positive feelings that were present when participating in teaching (Csikszentmihalyi, 1991). Intrinsic motivation was defined as the willingness to participate in teaching activities, such as planning outside of official work hours, and the internal satisfaction of the work for the “inherent pleasure and satisfaction of the activity” (Bakker, 2008, p. 401), without a logical extrinsic reward, such as money, fame, or beauty (Deci & Flaste, 1995). The population studied were teachers of GED programs in Virginia and North Carolina, resulting in a convenience sample size of 112 participants (Adult and Continuing Education of Central Virginia, 2019; NC Community Colleges, 2021; Virginia Department of Education, 2020). The goal of this study was to add to the literature a viable means to motivate teachers to persevere with deliberate practice to the point of flow (Csikszentmihalyi, 1990; Duckworth, 2016; Ericsson & Pool, 2016).

**Significance of the Study**

Flow theory had influenced the current wave of positive psychology and had shown self-reflective methods to produce healthy environments (Brooks, 2011; Seligman & Csikszentmihalyi, 2000). The depth and range of flow theory was shown in the secondary works and associations produced. Harmat et al. (2016) formed the European Flow Researchers Network (EFRN) to attain a “common international understanding of the concept and measurement of flow” (p. v). The EFRN was a collaboration of 41 authors that resulted in the book *Flow Experience* (Harmat et al., 2016). Flow was both concrete and elusive. Those who had gone through a flow experience could explain in detail what they were feeling and what they were doing at the exact moment of flow (Csikszentmihalyi, 1975). Yet, with all the literature present, there was still confusion. Duckworth (2016), a psychology professor at the University of Pennsylvania, held a discussion between Ericsson, who discovered the
theory of deliberate practice, and Csikszentmihalyi (1975), who discovered the theory of flow (Ericsson & Pool, 2016). Even Duckworth (2016), who received the MacArthur award, which signified her as a genius in the field of psychology, was concerned there would have been conflict in the discussion between Ericsson and Csikszentmihalyi (1975). Duckworth (2016) was pleasantly surprised that both theories supported each other, and that deliberate practice and flow easily coexisted (Csikszentmihalyi, 1975; Duckworth, 2016; Ericsson, 2016). This dissertation continued to clarify the components of signs of absorption, work enjoyment, and intrinsic work motivation within flow to advance the research currently available.

Newport (2016), a professor at Georgetown University, referenced Mihaly Csikszentmihalyi as the “world’s best-known psychologist” (p. 82), and new instruments were being created and combined to contextualize Csikszentmihalyi’s (1975) flow theory in different uncharted avenues (Bakker, 2008; Huette et al., 2021; Moneta, 2012; Olcar et al., 2019; Wolfgiel & Czerw, 2017). Fullager et al. (2017) called flow experience (Csikszentmihalyi, 1975) “one of the most original constructs developed in psychology” (p. 1) in the 20th century. Fong et al. (2015) wrote a meta-analysis on the challenge-skill balance of flow. Positive psychology, which was influenced by flow theory and started 20 years ago, was still going strong with financial and emotional backing from Christians, Buddhists, and intellectuals (Smith, 2019). Lomas (2016) argued there was a second wave of positive psychology in which the emphasis was not only on the positive but an acknowledgement of the negative within the positive. A new shift had been to acknowledge the intrinsic quality of flow and how external circumstances effected flow (Bonaiuto et al., 2016; Zito et al., 2019). Huette et al. (2016) stated “new prospects for research in the domain opened when considering these three levels: people, groups, and institutions” (p. 128). This study attempted to build on the previous research on flow by using the concepts in an understudied
setting, GED programs, and looking at the nuances of eudaimonia, or happiness, experienced among teachers in hopes of finding innovation in strengthening the teaching workforce (Bonaiuto et al., 2016; Csikszentmihalyi, 2012; Johansson, 2006; Seligman, 2006; Tyler & Lofstrom, 2010).

Research Questions

The research questions for this study were:

**RQ1**: How accurately can years of teaching be used as a predictive factor to determine levels of work absorption among teachers of GED programs?

**RQ2**: How accurately can years of teaching be used as a predictive factor to determine levels of work enjoyment among teachers of GED programs?

**RQ3**: How accurately can years of teaching be used as a predictive factor to determine levels of intrinsic work motivation among teachers of GED programs?

Definitions

1. *Flow* – “The state in which people are so involved in an activity that nothing seems to matter; the experience itself is so enjoyable that people will do it even at great cost, for the sheer sake of doing it” (Csikszentmihalyi, 1990, p. 4).

2. *General Education Development (GED) Program* – A government funded program where students who did not graduate from high school and are over 18 years of age can attain a General Education Development (GED) diploma by receiving free instructional assistance to prepare and pass the GED test (Adult and Continuing Education of Central Virginia, 2019). There are also other types of high school equivalency programs, such as the High School Equivalency Test (HiSET) and the National External Diploma Program (NEDP), which are put under the umbrella of GED programs (CASAS, 2021; ETS HiSET, 2021). For this research, all high school
equivalency programs were collectively referred to as GED programs. This research focused specifically on GED programs in Virginia and North Carolina.

3. Giving – A style of reciprocity that was one of the three fundamental styles of social interaction, where “if you’re a taker, you help others strategically, when the benefits to you outweigh the personal costs. If you’re a giver, you might use a different cost-benefit analysis: you help whenever the benefits to others exceed the personal costs” (Grant, 2013, p. 5).

4. Growth Mindset – A way of thinking “based on the belief that your basic qualities are things you can cultivate through your efforts, your strategies, and help from others…” (Dweck, 2016, p. 7) through “accurate information about your [one’s] current abilities, even if it’s unflattering” (Dweck, 2016, p. 11).

5. Intrinsic Work Motivation – One of three criterion variables describing a specific aspect of flow used in this study defined as, “performing a certain work-related activity with the aim of experiencing the inherent pleasure and satisfaction of the activity” (Bakker, 2008, p. 401).

6. Teachers – Individuals who, for this research, worked for the government in disseminating information in the public-school systems and were necessary for sustaining the education system. According to Goldstein (2014), “50 percent of all beginner teachers…[chose]… to leave the profession within five years” (p. 7). Veteran educators were deemed to be “more effective at raising student achievement than is the rotating cast of inexperienced teachers who try these jobs out but flee after one to three years” (Goldstein, 2014, p. 6).

7. Work Absorption – One of three criterion variables describing a specific aspect of flow used in this study defined as “a state of total concentration, whereby employees are totally immersed in their work” (Bakker, 2008, p. 401).
8. _Work Enjoyment_ – One of three criterion variables describing a specific aspect of flow used in this study defined as a description of “employees who enjoy their work and feel happy and make positive judgments about the quality of their working life” (Bakker, 2008, p. 401).

9. _Work-Related Flow (WOLF) Inventory_ – A seven-point Likert scale questionnaire that was recommended for educational arenas to measure flow in the areas of absorption, work enjoyment, and intrinsic motivation (Bakker, 2008; Huette et al., 2016). In the original article by Bakker (2008) and in other peer-reviewed articles, the WOLF inventory was written in long form as WOrk-reLated Flow scale with the letters, w, o, l, and f capitalized. However, this brings about aesthetic confusion so, in this dissertation, the WOLF Inventory was written as Work-Related Flow Inventory in the long form.

10. _Years Teaching_ – The predictive variable stated as the specific quantifiable number of years teachers were in a paid teaching position. The number of years would assume that as years progress, teachers increased in their capabilities because “the state of flow is felt when opportunities for action are in balance with the actor’s skills,” (Csikszentmihalyi, 1975, p. 49).
CHAPTER TWO: LITERATURE REVIEW

Overview

This chapter presented a review of the literature on GED programs, teacher work satisfaction, work motivation, and positive psychology. Using two theoretical frameworks, flow and growth mindset, a closer literary look at GED programs was conducted. This chapter continued exploring related literature and how the human interactions of administrators, teachers, and students brought practical application to the literature. The chapter concluded with suggestions for practical applications within the GED programs and a deeper analysis of the presence of faith in flow.

Theoretical Frameworks

Flow Theory

Flow theory was the preeminent theory in this dissertation and was selected because of the creative range given to relate to the research problem at hand (Ceja & Navarro, 2017; Csikszentmihalyi, 1975). Flow theory was used as a lens through which a realistic understanding of the hardships of life were reevaluated in the context of teachers, resulting in a positive potential emphasis that could assist in achieving suggestions for teacher retention (Csikszentmihalyi, 1975).

Biographical Information and Discovery of Flow Theory

Csikszentmihalyi (1990), a World War II survivor, went through many years of seeing suffering before he stumbled upon the theoretical framework of flow (Csikszentmihalyi, 2014; Nuszpl, 2018; Pink, 2009). Riding on the last train leaving Budapest during the war and experiencing the death of two siblings and other extended family members, Csikszentmihalyi (1990) was exposed to people who had similar experiences of seeing firsthand the travesties of World War II (Csikszentmihalyi, 2014; Nuszpl, 2018). Most of the survivors Csikszentmihalyi (1990) saw were depressed and
downtrodden (Beard, 2015; Nuszpl, 2018). However, there were a few people in the community who were happy even though they had experienced the same horrifying sights (Csikszentmihalyi, 1990). Analyzing the differences among those who were happy, Csikszentmihalyi (1990) noticed certain people rapturously engaged in an activity for hours with great joy to the point of forgetting to eat. This state of enjoyment in an activity was eventually classified as flow, or the autotelic experience. Initially, those in academic circles took the concept of flow as an observation of the obvious without need for analysis. However, as the concept of flow was explained with greater detail, interest in this theory grew tremendously. Next, a short summary of the characteristics of flow was developed to bring about an understanding of the depth and richness of this theoretical framework.

**Definition**

Flow theory had been defined as complete consumption in an activity to the point that time stood still (Csikszentmihalyi, 1990). Musicians, when composing or playing, attained that level of rapturous absorption (Kaufman & Gregoire, 2015). Athletes somehow squeezed in the time for grueling workouts to be able to shine during competitions (Afremow, 2014; Jackson & Csikszentmihalyi, 1990). For teachers, flow was the extra rush of endorphins that happened in which they explained a complex concept in simple terms and had a group of students who would otherwise not have understood the concept, suddenly be awakened to new knowledge. They spent countless hours preparing and researching to disseminate information so that students would have that amazing “aha” moment. For some, the absorption of musicians, athletes, and teachers seemed incomprehensible (Bakker, 2008). Flow was described as an ephemeral experience that was the product of inordinate amounts of hours required to achieve a level of mastery (Csikszentmihalyi, 1990). There existed a balance between skill level and challenge to reach an optimal level of flow (see Figure 1) (Csikszentmihalyi, 1975; Jackson & Csikszentmihalyi, 1990). Pragmatically, all those hours
for fleeting moments of flow did not seem to add up, but those who had experienced a sense of flow viewed this autotelic moment as worth it (Csikszentmihalyi, 1990). They understood the sheer bliss of the moment and found those extra hours to hone their skills as a worthy endeavor to reach that level of expertise resulting in flow (Csikszentmihalyi, 1990).

**Figure 1**

*Model of the Flow State*

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*Note.* Balance between action opportunities, or challenges, and action capabilities, or skills (Csikszentmihalyi, 1975, p. 49).

**Characteristics of Flow**

*Active Versus Passive Engagement*

If one were to divide learning into the two categories of active and passive learning, flow would take an active form of learning (Csikszentmihalyi, 1990; Hernandez, 2009; Kubey & Csikszentmihalyi, 1990; Olcar et al., 2017). There were passive activities described that brought about temporal moments of joy, but they were of a different category than flow
(Hernandez, 2009; Kubey & Csikszentmihalyi, 1990). Within flow, there was a
differentiation between minor levels of flow and major levels of flow. Major levels of flow
were rare and were experienced only a handful of times in a person’s life. Minor levels of
flow, on the other hand, were achieved more frequently (Csikszentmihalyi, 1975). Those with
a higher percentage of flow within their lives tended to participate in more active levels of
engagement rather than passive activities, such as watching television (Csikszentmihalyi,
theory associated the mystery of flow theory with an emotion. Consistently, the emotion and
rapture of accomplishment was present, but those emotions were coupled with an active form
of attaining a skill that was above-average (Csikszentmihalyi, 1975, 1990; Duckworth, 2016;
Dweck, 2016; Olcar et al., 2017). A balance between skill and challenge was needed to enter
flow, and the accountability structures at work were more conducive to providing those
circumstances (Csikszentmihalyi, 1975; Fong et al., 2015). Surprisingly, flow was
experienced in greater levels at work, with teaching as one of the professions that
experienced higher levels of flow (Delle Fave & Massimini, 2003). This work setting was
conducive to promoting flow because individuals were challenged to complete undesirable
tasks that eventually built up skills to take on more meaningful challenges (Csikszentmihalyi,
1990, 1997).

Maintenance Activities

Kubey and Csikszentmihalyi (1990) differentiated activities into three areas: work,
maintenance, and leisure. Work took approximately 30% of a person’s time, leisure took 30%
of a person’s time, and maintenance took about 40% of a person’s time (Kubey &
Csikszentmihalyi, 1990). Work and leisure were the two main areas in which individuals
tended to find flow, and maintenance activities were usually necessary items to live
(Csikszentmihalyi, 1990; Kubey & Csikszentmihalyi, 1990). To achieve flow, there needed
to be a balance of challenging skills and opportunities which was, oftentimes, not present in maintenance activities (Csikszentmihalyi, 1975; Ilies et al., 2017). Teachers, when first entering the field, were overwhelmed with the challenges of the profession (Gardner, 1991; Ingersoll et al., 2018; Sizer, 1992). Eventually, many of those challenges were overcome, and the activities that were once a challenge became maintenance activities (Csikszentmihalyi, 1975; Kubey & Csikszentmihalyi, 1990). When something became a maintenance activity, the euphoria and rush of flow waned at varying levels. This research attempted to gain more understanding as to specific times, in terms of years, when GED teachers had optimal levels of flow; when teachers made a shift from seeing their profession as something that was no longer a challenge; and when teachers saw their profession as a maintenance activity (Fong et al., 2015; Kubey & Csikszentmihalyi, 1990).

**The Classifications of Flow**

Csikszentmihalyi (1975) established the term flow as a native category through the results of qualitative research (Buckley & Chapman, 1997). Flow was based on Callois’ (1958) classifications of autotelic activities (as cited in Csikszentmihalyi, 1975). Callois identified four central human needs that had intrinsic rewards associated with activities: competition, control the unpredictable, mimicry, and vertigo (Csikszentmihalyi, 1975). Competition was found in sports, religion, and politics. Control of the unpredictable was found in gambling and astrology. Mimicry was found in the arts, such as when children pretend to be characters. Vertigo was the feeling of danger in rollercoaster rides and sports, such as skiing. Building on this structure, Csikszentmihalyi (1975) added one more category to the classifications derived from Callois, friendship and relaxation, to explain the concept of flow.

The categories of flow overlapped with the concept of spiritual gifts to equip God’s people who individually expressed themselves in a community to experience something
greater (Csikszentmihalyi, 1997; Deci & Flaste, 1995, Duckworth, 2016; Mattson, 2006). First Corinthians 12:4-5 stated, “there are different kinds of gifts, but the same Spirit distributes them. There are different kinds of service, but the same Lord” (*The Holy Bible, New International Version, 2011*). The intrinsic rewards from flow were different according to the gifting and makeup of an individual (Csikszentmihalyi, 1975). However, the description of transcendent rapture while different people were participating in areas of their gifting were similar. Individuals within a community were gifted in a unique way to fulfill the needs of the community (*The Holy Bible, New International Version, 2011; Mattson, 2006*). The enjoyments of individuals were different, and the manifestations of these enjoyments were catered in a certain way to fit with the community (Csikszentmihalyi, 1997).

Teachers also had unique skills and expressions in their profession. Understanding autotelic experiences for teachers would allow them to find fulfillment as they processed what unique talents God had given them to participate in His choreographing of humanity. There was a special calling to be a teacher (*The Holy Bible, New International Version, 2011, Eph. 4:11-12*). Teaching, in the secular realm, was a type of academic discipleship present to train up the next generation. Those who understood and had that calling delighted in sharing the gifts they had received through the dissemination of content (*The Holy Bible, New International Version, 2011, 2 Cor. 8:7; Delle Fave & Massimini, 2003; Grant, 2013*).

**Components**

Flow was characterized by nine components: concentration or absorption; control; merging of action and awareness; autotelic experience or intrinsic motivation; loss of self-consciousness; loss of time; goals or enjoyment of (in the case of this research) work; feedback; and balance of challenge and skills (Csikszentmihalyi, 1993; Moneta, 2012). Initially, flow research was qualitative (Csikszentmihalyi, 2012; Fullager et al., 2017). As
flow research gained in popularity, there had been numerous quantitative assessments
developed testing all nine components or variations in which a few of the components were
tested (Bakker, 2008; Huette et al., 2016, 2021; Moneta, 2012; Wolfigiel & Czerw, 2017).
This research used a limited research setting of teachers serving GED programs and
quantitatively focused on three of the nine components of flow: work absorption, work
enjoyment, and intrinsic work motivation, in order to bring about a deeper-nuanced
understanding of how to assess flow in a community striving for the intrinsic work
motivation of the competence of students in GED programs (Bakker, 2008; Csikszentmihalyi,
1990; Deci & Flaste, 1995; Duckworth, 2016; Fullagar et al., 2017; Moneta, 2012; Zito et al.,
2019).

**Growth Mindset Theory**

A second and supporting theoretical framework used in this research was growth
mindset by Dweck (2006). Growth mindset was from a positive psychology perspective that
utilized the concept of acknowledging difficult circumstances that were simultaneously
present in joyous progress (Dweck, 2006, 2016). Dweck (2016) asserted that she had a dream
to marry a prince and did, in fact, marry her prince charming. She also had a dream job in
mind that she eventually achieved. However, her prince charming and dream job, as with all
her other ambitions, came with flaws, and maintaining her dream job continually took a great
deal of effort (Csikszentmihalyi, 1990, 1997; Delle Fave & Massimini, 2003; Dweck, 2016).
These two examples of achievements acknowledged that even the joyous situations in one’s
life were not devoid of obstacles. Rather, an emphasis on navigating life’s journey with a
growth mindset was what was needed (Dweck, 2016).

Therefore, the focus of a goal, such as attaining flow, emphasized growing with the
inevitable negative dross present, rather than trying to live a life completely void of obstacles
(Csikszentmihalyi, 1975; Dweck, 2016; Seligman, 2006). Growth mindset was to be
established from within, since our internal compass was what an individual could control (Dweck, 2016). External circumstances could have been altered, but ultimately, the largest influence was on the internal drive towards a goal (Deci & Flaste, 1995; Dweck, 2016). Research showed that growth mindset among students overcame even financial barriers (Claro et al., 2016). Claro et al. (2016) researched children in Chile and discovered students in lower socioeconomic circumstances with a growth mindset had higher aggregate test scores than their peers of similar socioeconomic circumstances. However, students in lower socioeconomic circumstances had a higher tendency towards a fixed mindset (Claro et al., 2016). In other words, circumstances created a higher percentage of fixed mindset, and maintaining a growth mindset in those circumstances created higher levels of achievement. Using the concept of growth mindset as a pathway to achievement, a look at teacher shortage and teacher satisfaction with the two frameworks, flow and growth mindset, was conducted (Csikszentmihalyi, 1975; Dweck, 2016; Patrick & Joshi, 2019).

**Characteristics of Growth Mindset**

Dweck (2016) described five aspects of growth mindset: challenges, obstacles, effort, criticism, and success of others. Next, a closer look at each characteristic was discussed.

Growth mindset was a good supporting theoretical framework to flow because this theoretical framework acknowledged the presence of hardships within the pursuit of flow (Dweck, 2016).

**Challenges**

Dweck (2016) observed two groups of children. One group of children was attracted to difficult puzzles, while another group of children was attracted to easier puzzles (Bronson & Merryman, 2009; Dweck, 2016). Loosely speaking, the children who were attracted to the more difficult puzzles were attributed with having qualities of a growth mindset that embraced challenges rather than shying away from difficulties (Dweck, 2016). An
assumption could have been made that those who chose to enter the teaching profession were choosing to embrace a profession with a certain level of difficulty, and these individuals chose to focus their attention on a more difficult task, similar to the children who opted to work on the harder puzzles (Dweck, 2016; Kubey & Csikszentmihalyi, 1990). Duckworth (2016) acknowledged “teaching to be a grit-demanding profession” (p. 176). Those who chose the teaching profession and stuck with it had the intrinsic quality of embracing challenges (Dweck, 2016).

**Obstacles**

A fixed mindset was the opposite of a growth mindset, and an individual with a fixed mindset gave up on an objective easily, while a growth mindset persisted (Duckworth, 2016; Dweck, 2016). Therefore, teachers who had years of experience in the teaching field understood the rigorous demands of the profession, but still chose to continue with a growth mindset (Dweck, 2016). When teachers persevered, they created an ideal combination of developing skills and challenges (Csikszentmihalyi, 1975). The goal for administrators and policymakers was not to remove all the obstacles from teaching. Rather, the goal was to create a structure in which to assess the balance of challenges and skill levels of teachers, which may have been related to the number of years teaching (Csikszentmihalyi, 1975).

**Effort**

Those with fixed mindsets did not see value in effort, whereas those with growth mindsets saw effort as a springboard to mastery (Csikszentmihalyi, 1990; Dweck, 2016). Growth mindset was in alignment with flow in acknowledging that happiness was achieved through cultivation (Csikszentmihalyi, 1990; Dweck, 2016). Using the context of teaching, teachers with a growth mindset placed more effort into the teaching profession; thus, they saw more achievements. In other words, teachers were “diligent in these matters… [by giving of themselves] wholly…so that everyone may see…[their] progress” (The Holy Bible, New
Fledgling teachers who struggled to maintain a growth mindset looked to veteran teachers who had higher levels of growth mindsets as inspirations to continue to put forth effort (Dweck, 2016).

**Criticism**

Fixed mindset individuals tended to ignore negative feedback (Dweck, 2016). Those with growth mindsets acknowledged that when negative feedback was given, there was discomfort, but they grew from the experience. Growth-minded teachers utilized the negative feedback given by students, administrators, and policymakers to benefit their situation (Dweck, 2006).

**Success of Others**

Those with growth mindsets were aware of their surroundings and grew from both negative and positive scenarios (Dweck, 2016). Therefore, the success of others was used as an inspiration, whereas fixed-mindset individuals felt threatened by the success of others. The success of educators who persisted in teaching while maintaining a growth mindset were a source of encouragement rather than discouragement. Understanding growth mindset could have been instrumental in creating a community, such as teachers serving GED programs, that was conducive to flow (Adult and Continuing Education of Central Virginia, 2019; Csikszentmihalyi, 1990; Dweck, 2016; Zumeta et al., 2016).

**Related Literature**

**Giving as a Teacher Attribute**

A recent emphasis among researchers of flow theory had been to focus on the communal aspects of flow (Ilies et al., 2017; Zito et al., 2019; Zumeta et al., 2016). The concept of giving, as espoused by Grant (2013) in his book, *Give and Take*, fleshed out how the two theoretical frameworks, flow and growth mindset, interacted within the community (Csikszentmihalyi, 1975; Dweck, 2006). Grant (2013) differentiated individuals in a society
into three different categories: givers, takers, and matchers. People varied from being a giver, taker, or matcher, depending on the circumstances in their lives and who they were interacting with, such as colleagues or friends. In the work arena, people gravitated towards being a matcher and more of a giver in relationships. Most people, by disposition, were matchers. Surprisingly, those in the top 15% and bottom 15% of income earners were givers. The individuals at the top of their field were those that shared information and made efforts to constantly do small favors. Givers had two extreme results. They were the ones who were constantly harried and looked as if they were currently in a heavy state or about to be burnt out. The other extreme was the successful workers who continued to share because they wanted to make the world a better place (Grant, 2013).

Teaching, as a profession, required a great deal of giving (Sizer, 1992). There were some teachers that thrived and others that did not. Teaching, with the theoretical frameworks of flow and growth mindset within the realm of giving, gave a specialized perspective (Csikszentmihalyi, 1990; Dweck, 2016; Grant, 2013). According to Grant (2013), emotional attachment was attained through giving rather than receiving (Corbett & Fikkert, 2012). In other words, people were fond of those they had given to more so than those they had received favors from. This seemed counterintuitive, since initially when one received something there was genuine appreciation for the gift. However, receiving did not bring about a long-lasting appreciation in comparison to the long-lasting appreciation one received from giving (Grant, 2013). Therefore, for teachers to truly enjoy their profession, they needed to give to their students to stimulate affection for what they did (Grant, 2013).

Pronoia was a term meaning the opposite of paranoia (Grant, 2013). Grant (2013) described pronoia as what givers experienced when they assumed others were like themselves and were naturally thinking positively about them while wanting them to succeed. This was a side benefit of giving that had large residual effects (Grant, 2013). When teachers,
administrators, and students gave within the academic system of the GED program, a contagious pronoia of seeing the world in a better light occurred. To further understand this concept, a closer look at the communal giving among administrators, teachers, and students to create a community of givers was discussed within the literature review; like salt, the giving of these groups was oftentimes appreciated in context without realizing the value added to the situation (Grant, 2013; *The Holy Bible, New International Version*, 2011, Matt. 5:13).

**Givers, Takers, and Matchers as Related to Teaching and Learning**

Grant (2013) was aware of the presence of takers in a community. Warren (2006) called these people extra grace required. Csikszentmihalyi (1993) addressed this group of people as predators and parasites. Grant (2013) went through practical applications of how to address certain situations that interacted with takers. This research understood that teachers gave so much and could have been prey to the forces of takers. Therefore, a practical application section towards the end of the literature review was included to produce suggestions of ways to cultivate healthy academic structures (Grant, 2013).

Seligman (2006) acknowledged that pessimists had a clearer understanding of a situation, but that clarity oftentimes did not aid in making a situation better. Using this premise, a positive psychological approach to the GED community was taken, giving a closer look at the positive aspects of how all three parties—administrators, teachers, and students—gave to understand the nuanced uplifting elements within the education system of the GED community (Seligman, 2006; Seligman & Csikszentmihalyi, 2000). In hopes of researching the topic of teachers serving GED programs with a long-ranging goal of promoting teacher satisfaction, the concepts of where each group gave and where one should have been wary in certain dynamics was addressed (Grant, 2013).
The Intersection of Flow, Growth Mindset, and Giving

For this research study on flow theory, external circumstances were acknowledged only in relation to focusing the attention on the teacher (Csikszentmihalyi, 1990). For a teacher to experience flow, a certain amount of time needed to have been dedicated to achieving an above-average skill set to have been at a point of absorption (Csikszentmihalyi, 1990). However, even in a perfect world, flow was not enough. There were obstacles along the way that needed to be addressed (Dweck, 2016). When encountering those peaks that took effort, rather than succumbing to the obstacles, a growth mindset needed to have been adopted to continually pivot on the journey of attaining that autotelic experience (Csikszentmihalyi, 1975; Duckworth, 2016; Dweck, 2016; Tetlock & Gardner, 2015). Using a growth mindset and flow framework to look at the perspective of teachers and understand their intrinsic drive, research was conducted to glean motivational strategies for teacher retention (Csikszentmihalyi, 1975; Deci & Flaste, 1995; Dweck, 2016; Pink, 2009). Giving continued the theories of flow and growth mindset by recognizing that the motivation for growth was best achieved when one sought with a purpose beyond personal gain (Csikszentmihalyi, 1997; Duckworth, 2016; Dweck, 2016; Grant, 2013; Hur et al., 2016).

Positive Psychology

Sterke et al. (2015) stated that there was a gap in the literature concerning the intersection of the study of teacher retention and positive psychology. Positive psychology pointed to the internal conditions of a teacher that combated maladaptive behavior and brought about contentment (Seligman, 2006; Seligman & Csikszentmihalyi, 2000). Acknowledging and acting upon a need to understand the situation, rather than staying in a state of maladaptive dissatisfaction, was a step towards achieving a positive outlook on the teaching situation (Allen, 2015; Seligman, 2006). Therefore, using the concepts promoted in positive psychology, a broader understanding of the number of years teachers usually needed
to reach flow and correlative factors of growth mindset were explored in hopes of achieving a cross-sectional discovery (Csikszentmihalyi, 1990; Duckworth, 2016; Dweck, 2006; Johansson, 2006).

Contextual Factors to Consider when Analyzing Flow and Growth Mindset in the Educational Arena

The Teaching Vocation

The state of the teaching workforce demonstrated the strength of America’s education system (Mathis, 2015). Teachers were crucial in interacting with students, creating an atmosphere for learning, implementing educational goals, and having a direct correlation to the quality of education provided (Goldstein, 2014). Unfortunately, there was a teacher shortage in America (Hughes et al., 2014; Ingersoll et al., 2018; Jones & Watson, 2017; Lambersky, 2016; Lochmiller et al., 2016). To compound the situation, educational institutions often knew whether teachers were satisfied after they had resigned but were unaware of the difficulties faced by teachers before they left the profession.

Teaching had always been an ever-changing profession, with every decade shifting the focus that affected the lives of most school-aged children (Goldstein, 2014; Ravitch, 2001). These changes were overwhelming to teachers (Gardner, 1991). To compensate, teachers filtered the information given to them and absorbed only a limited sustainable amount (Brooks, 2011; Sizer, 1992). This process of filtering facts was an important survival mechanism among teachers (Gilbert, 2007; Gladwell, 2005; Kahneman, 2011; Sizer, 1992). Time was needed to absorb enough information for teachers to have achieved a skill set to take on the challenge of teaching (Csikszentmihalyi, 1975, 1993; Duckworth, 2016; Ericsson & Pool, 2016; Gladwell, 2008). This research sought to understand why teachers persisted through the theoretical framework of flow and growth mindset, focusing on the intrinsic value of teachers who saw their profession as a special vocational calling beyond external
circumstances and chose to persist (Brooks, 2015; Csikszentmihalyi, 1975; Duckworth, 2016; Dweck, 2016). Most teachers were aware of the external conflicts arising and possibly hindering their effectiveness. However, these external factors were not enough to sway them from their calling (Brooks, 2015; Goldstein, 2014). Rather, these external factors fueled the motivation for teaching, resulting in an internal sense of purpose (Bakker, 2008; Brooks, 2015; Deci & Flaste, 1995; Hur et al., 2016; Renninger & Hidi, 2016; Warren, 2006).

**Financial Factors**

Gladwell (2013) described the concept of the inverted U, in which there was an optimal number of resources or other factors that provided the best living circumstances. Collectively, individuals desired more finances assuming that their quality of life would have been comparatively better with a higher salary (Csikszentmihalyi, 1999; Gladwell, 2013). However, the higher an individual salary became, the higher the individual threshold for an optimal salary with the self-reported ideal salary became, being approximately twice what one was currently making (Csikszentmihalyi, 1999). In other words, most people were dissatisfied with the salary they received, regardless of the amount, and tended to want twice as much (Csikszentmihalyi, 1999).

Gladwell (2013) concluded that the ideal salary for a family of four was $75,000. The rationale was if children had too much money, they lived an entitled, unrealistic life that did not help them develop character (Gladwell, 2013). However, if children were raised in poverty, they lived a deprived life that parents could not provide for their growth (Claro et al., 2016; Gladwell, 2013). Children who were raised in a household that made roughly $75,000 a year had the ideal combination of financial means to explore interests while simultaneously having to be careful about finances (Bock, 2015; Ferguson & Moritz, 2016; Gladwell, 2013).
There were certain influences that were beyond a teacher’s ability to change (Bauer, 2018; Pink, 2009). They had fixed hours that they needed to instruct and results in the form of test scores that needed to be achieved (Bauer, 2018). Salary was also fixed in most public-school settings (Hogan, 2019). Yet, there was a flexibility in the perspective teachers could have selected while participating in the art of being a teacher (Seligman & Csikszentmihalyi, 2000). Teachers could have chosen to have a growth mindset that emulated a state of flow (Csikszentmihalyi, 1990; Dweck, 2016). Teachers did not have to have all their requirements met (Sandberg & Scovell, 2013). Rather than be fixed on what was lacking, teachers could have had a zone of proximal development perspective with a flow and growth mindset framework that could be achieved with grit in the inverted U trajectory (Csikszentmihalyi, 1990; Duckworth, 2016; Dweck, 2016; Gladwell, 2013; Newman, 2018).

**Extrinsic and Intrinsic Motivation.** Deci and Flaste (1995) described six aspirations or motivations: money, fame, beauty, competence, autonomy, and relatedness. Extrinsic motivations were money, fame, and beauty, while intrinsic motivations were competence, autonomy, and relatedness (Deci & Flaste, 1995; Deci & Ryan, 2000). The extrinsic motivation for money overlapped with the intrinsic motivation of autonomy when money was a need rather than a want (Deci & Ryan, 2000). In the previous paragraph, a threshold of a certain salary amount was specified to differentiate between the need and want of money. Deci and Flaste (1995) referenced research done by Kasser and Ryan (1993), in which they discovered individuals who had an excessive external aspiration for money, fame, or beauty, in comparison to an intrinsic aspiration of competence, autonomy, and relatedness, had a stronger likelihood of poor mental health. Deci and Flaste’s (1995) research confirmed motivational emphasis, beyond a certain financial threshold, should not have been money.

**Flow and Self-Determination Theory.** Focusing on the intrinsic motivation of autonomy in self-determination theory (SDT), a closer look at flow theory was addressed
Flow theory began with an emphasis on intrinsic motivation, like SDT (Deci & Ryan, 2000). However, flow theory focused on how the intrinsic motivation felt, while SDT focused on the external results of the intrinsic motivation (Csikszentmihalyi & Csikszentmihalyi, 1988). SDT addressed the need for autonomy support, while flow theory did not endorse the need for autonomy, but addressed how communities could have created environments conducive to flow (Bassi & Dell Fave, 2012; Deci & Flaste, 1995; Ilies et al., 2017; Zumeta et al., 2016).

An explanation that could have been derived for this discrepancy was the extreme circumstances of the origin of flow theory (Pink, 2009). Flow theory was birthed through the observation of an extreme aftermath amongst a war-torn community, and, therefore, came with a different concept of needs (Csikszentmihalyi, 2014; Nuszpl, 2018; Pink, 2009). Synthesizing the research available, a conclusion was attained that organizations that promoted autonomy rather than leading with permissiveness had characteristics of an organization that also promoted flow in the community (Deci & Flaste, 1995; Ilies et al., 2017; Scott, 2017; Zumeta et al., 2016).

**Persevering in the Teaching Profession**

**10,000 Hours and Deliberate Practice.** Gladwell (2008) described the concept of 10,000 hours to achieve mastery, which was originally coined by Ericsson (2016). In essence, mastery of teaching was not achieved overnight but with a grueling number of hours to become skilled (Csikszentmihalyi, 1975; Duckworth, 2016; Dweck, 2016; Ericsson & Pool, 2016; Gladwell, 2008; Sizer, 1992). Teachers were expected to be experts in both the content of their field and the art of teaching to the point that professional development and professional learning were oftentimes used interchangeably (MacPhail et al., 2019; Zuber-Skerritt, 2012). In other words, teachers were expected to have achieved two types of mastery, which required 20,000 hours of deliberate practice (Ericsson & Pool, 2016;
Gladwell, 2008). Hypothetically, 10,000 hours should have been devoted to mastering the content, and 10,000 hours should have been devoted to mastering instructional methodology (Ericsson & Pool, 2016; Gladwell, 2008). For teachers who had put forth 50 hours a week for 50 weeks, which would have totaled 2,500 hours a year, and at that rate, it would have taken teachers eight continuous years to have become master teachers (Ericsson & Pool, 2016; Gladwell, 2008). The commitment to train in such a manner was a daunting task for teachers, and, therefore, many were limited in how much time they could have devoted to improving methodology, even though they knew concerted effort would have resulted in higher efficiency of teaching (Voller, 2012; Zuber-Skerritt, 2012). The task given to teachers of adult learners who were returning for a GED credential was even more daunting, since the recipients of the program had already dropped out of school previously and were trying a second time to earn a high school diploma. Yet, with all these obstacles, like Csikszentmihalyi’s (1990) observation of World War II survivors, there was a group of teachers and students that were perseveringly joyful in what they did (Beard, 2015; Duckworth, 2016; Nuszpl, 2018).

**Grit and Growth.** Individuals were constantly swayed by emotions (Burnett & Evans, 2016). Flow research initially started as qualitative research with measures to assess emotional levels of participants, knowing that individuals varied in their level of flow and emotions within a single day (Burnett & Evans, 2016; Csikszentmihalyi, 1990). Educators were human and not immune to emotional reactions to circumstances (Csikszentmihalyi, 1990). Having a growth mindset was a positive step towards academic achievement, but the concept of grit brought greater clarity to the concept (Duckworth, 2016; Dweck, 2016). Duckworth (2016), in her book *Grit*, wrote over 30 pages describing the concept of growth mindset to grow grit from within for the purpose of influencing others (Csikszentmihalyi, 1997; Dweck, 2016). Duckworth (2016) also acknowledged teaching as a grit-intensive or
challenging profession. In the section titled *Hope*, she went into the details of the role of growth mindset in growing grit and brought about specific practical applications (Dweck, 2016).

A main tenet Duckworth (2016) brought about was the concept of achievement. With talent and effort, an individual could bring about a skill. With skill and effort, an individual could bring forth an achievement. Therefore, to have a significant achievement, individuals needed to put forth double the effort (Duckworth, 2016). Combining the concept of growth mindset with grit brought about an understanding that the state of achievement was when teachers had a sense of flow while teaching (Csikszentmihalyi, 1990; Duckworth, 2016; Dweck, 2016). To get to that level of achievement, teachers were at some point in the 10,000-hour continuum (Duckworth, 2016; Ericsson & Pool, 2016). Throughout the process of improving in teaching, a teacher initially gained a skill and then gained an achievement (Duckworth, 2016; Ericsson & Pool, 2016). Therefore, by researching years as portions of the 10,000 hours, this research placed quantifiable markers on self-rated assessments of flow (Delle Fave & Massimini, 2003).

**Zone of Proximal Development.** Vygotsky (1986) developed the concept of zone of proximal development that was attainable for a child (as cited in Newman, 2018). Zone of proximal development was an area that was slightly out of reach for a child but close enough to be attained (Newman, 2018). Transferring the concept of zone of proximal development from children to teachers, there was a level of mastery that could be achieved at different stages of a teaching career but may currently have been out of reach. Using growth mindset and flow as markers of emotional satisfaction, an analysis of the years of satisfaction among teachers of students in GED programs was conducted to grasp a tangible model of zone of proximal development of teaching mastery (Csikszentmihalyi, 1990; Dweck, 2016; Newman, 2018).
The Relational Aspect of the Teaching Profession

The teaching profession was considered a community effort that involved at least three main constituents: administrators, students, and teachers. To understand the circumstances surrounding teachers and factors producing flow in teachers, an analysis of the perspective of the administrator and students was discussed in the following section so that what happened in the education setting could bring about communal energy (Csikszentmihalyi, 1993; Zumeta et al., 2016).

Administrative Perspective

Value. Smith (1776/2007) wrote that value had two different meanings. An object or person may have had value because it was useful or there could have been value in the purchasing power of a good (Smith, 1776/2007). Teachers were valuable to administrators in various ways (Jackson, 2019). Administrators knew that a good teacher could work wonders with a group of students (Goldstein, 2014). Intuitively, administrators could gauge who were good teachers; however, they were limited in tangible levels of acknowledging the value of a teacher (Smith, 1776/2007; Weisberg et al., 2009). Teachers were useful in upholding the school, but their purchasing power as far as salary was contingent on charts established by the district (Smith, 1776/2007).

Marginalization. The goals of an administrator and teacher were similar, but the administrator saw the running of the school in a collective manner. Unfortunately, that could lead to dehumanizing those in the teaching profession (Weisberg et al., 2009). Weisberg et al. (2009) coined the term “widget effect,” which was the treatment of teachers like an interchangeable part. The widget effect was like Smith’s (1776/2007) concept of addressing the value of a commodity or an individual, such as a teacher (Newport, 2016; Weisberg et al., 2009). In a study conducted by Weisberg et al. (2009), 99% of teachers were documented as receiving the same satisfactory rating on their administrative evaluation. Teachers were paid
depending on the number of years taught and academic achievements while being given equivalent ratings on quality of teaching, which was against the parameters of the frequent feedbacks needed for flow (Csikszentmihalyi, 1975, 1993; Fong et al., 2015; Weisberg et al., 2009). In other words, the unique qualities inherent in a teacher to inspire and impact the school were disregarded or assumed as mechanistic byproducts through acts of omission. To exacerbate the situation, the teaching profession tended to be female, which was historically considered a marginalized group (Goldstein, 2014; Obama, 2018). There was a push for the feminization of teachers, while giving them an honorific purpose of being missionary teachers, so they enlisted in teaching for a lower salary (Goldstein, 2014).

**Flow.** Flow looked different for administrators than teachers (Csikszentmihalyi, 1990; MacNeil & Cavanagh, 2013). However, administrators enhanced academic institutions to thrive by establishing circumstances for a critical mass of teachers to experience flow (Zito et al., 2019; Zumeta et al., 2016). Individuals compensated for other individuals that were not experiencing flow, and, if too much of that occurred, there was burnout rather than a thriving community (Csikszentmihalyi, 1993; Grant, 2013; Iancu et al., 2018). Just as burnout was contagious, flow and giving were contagious, too (Grant, 2013; Zumeta et al., 2016). Sinek (2013) differentiated between two different and necessary managerial functions embodied in different individuals. Within leadership there was a “why” individual directing how the organization ran, and there was a “how” person that implemented the day-to-day functions. Administrators were the why leaders that needed to give direction, and teachers were the multiple how leaders that implemented the day-to-day functions of their mini-business or classroom. Administrators and teachers were an example of two different types of functions that both felt a sense of flow in their operations (Sinek, 2013).
**Self-Reported Majority View**

According to Delle Fave and Massimini (2003), all teachers self-reported optimal experiences, or flow, in their lives (Moneta, 2017). Surprisingly, the activity with the highest percentage in which teachers self-reported optimal experience was in reading (20.4%), while teachers felt flow in the work of teaching at 13.9%, or third place, in their self-reported optimal experiences (Delle Fave & Massimini, 2003). Using this information for teacher satisfaction, a closer look at whether there was a self-reported optimal year of teacher satisfaction was addressed.

**Intrinsic Motivation.** The literature review given by Cornali (2019) discovered that most of the research showed the motivation for teachers to be “altruistic, service-oriented goals and other intrinsic sources” (p. 574). Likewise, Olcar et al. (2019) supported extrinsic motivation as a less likely factor in producing flow (Csikszentmihalyi, 1993). As stated previously within this chapter, an overemphasis on extrinsic motivators in relation to intrinsic motivators led to maladaptive behavior patterns (Deci & Flaste, 1995). Therefore, the findings of intrinsic motivation for teachers needed to be analyzed as a practical means of increasing the teaching population.

**Giving.** Just as teachers gave to evoke emotions in what they do, administrators also gave to teachers to value them (Grant, 2013). If not, administrators easily fell prey to the bureaucratic pressures of oppressing the critical mass that they deemed crucial in reaching the masses (Freire, 1968/2018). The giving for administrators took the form of individualized attention and providing opportunities for growth that teachers valued and clear goals and feedback to create environments that were conducive to flow (Csikszentmihalyi, 1997; Weisberg et al., 2009). Buckingham and Coffman (1999) gave the management advice to work on employees’ strengths and manage weaknesses. Therefore, administrators should
have capitalized on the strengths of their teachers by understanding the nuances of flow within the lives of their teachers (Bakker, 2008; Buckingham & Coffman, 1999).

**Student Perspective**

**Students of GED Programs as First-Generation College Students.** Students of GED programs could have been considered potential first-generation college students. The research was conflicting as to the percentage of students in GED programs that attended a higher education institution after graduation. Patterson et al. (2009) stated that 77% of GED recipients enrolled in higher education, with three percent continuing on to the consecutive following semester. Heckman et al. (2010) stated that the high percentage of students that enrolled in higher education was a self-reported figure without verification of actual implementation. First-generation college students shared many similar characteristics with students participating in the GED program. However, among students participating in the GED program that did not cross the barriers to enter higher education, there were greater differences in earning achievements (Page-Reeves & Cardiel, 2016).

Toutkoushian et al. (2018) did large-scale quantitative research among 10th graders, defining them as first-generation college students and their academic characteristics. There were varying definitions of first-generation college students, with the number of students who were classified as such ranging from 22%-77%, depending on the definition (Toutkoushian et al., 2018). Students with one parent who did not have at least a bachelor’s degree fell into the 77% of the student population definition of first-generation college students. The 22% statistic of first-generation college students was derived from students who did not have either parent ever attending a postsecondary institution. In this study, students in 10th grade were classified as first-generation college students, even though they did not, at that time, attend college. Many students participating in the GED program were in this category of first-generation college students, according to the definition by Toutkoushian et al. (2018). Using
the assumptions of students participating in GED programs as first-generation college students, the research on the psychological changes, financial hardships, academic difficulties among first-generation college students were incorporated into the study of teachers serving GED programs for analysis purposes (Atherton, 2014; Covarrubias & Fryberg, 2015; Demetriou et al., 2017; Hébert, 2017; Irlbeck et al., 2014; Pratt et al., 2017; Wibrowski et al., 2016).

**Psychological Changes.** The minute a student participating in the GED program walked into the classroom, a change occurred (Dweck, 2016). These students, who had re-entered the classroom, were going through a miniscule internal change from a fixed mindset to a growth mindset, which, with persistence, could have led to large noticeable changes among themselves and the people around them (Claro et al., 2016; Duckworth, 2016; Dweck, 2016). The research differed on whether these psychological changes were genuinely due to a lack of persistence among students in GED programs to complete the program and achieve a certificate or continue to higher education (Heckman et al., 2010; Malkus & Sen, 2011; Rossi & Bower, 2018). Some researchers did not see positive psychological changes among students of GED programs (Heckman et al., 2014; Sampson, 2016). Heckman et al. (2014) even made a claim that the introduction of GED tests had led to an increase in dropout rates because students relied on taking the test rather than focusing on the character-building aspects of persevering through high school (Sampson, 2016). However, there was a nuanced level of success that was present among students who were attempting to attain a GED that brought about a growth mindset amongst both the student for striving and the teacher who was experiencing the success of others (Dweck, 2016).

**Financial Factors.** Students returning to take their GED tests were either self-supported or supported by their parents and experienced some hardships after dropping out of high school (Adult and Continuing Education of Central Virginia, 2019; Heckman et al.,
The cost for participation in the program if it was government-sponsored was free for attendance, with a possible expense for the cost of the book, which was given to the students at a reduced price (Adult and Continuing Education of Central Virginia, 2019). The main cost to students was the time spent that could have been used in pursuing a different goal or gaining extra income (Toutkoushian & Paulsen, 2016). However, the future economic benefits students received exceeded the present financial loss, with added extra income and human capital, especially if GED recipients continued to study at least one year of higher education (Massey, 2018; Tyler & Lofstrom, 2010).

**Academic Weaknesses.** The biggest reason GED recipients cited for leaving high school was they thought getting a GED would be easier (Malkus & Sen, 2011). Heckman et al. (2010) frequently mentioned the implementation of GED certificates creating a rise in high school dropouts since the path to getting a GED was easier than getting a high school diploma. However, the 48% who cited that getting a GED was easier were not the ones who painstakingly entered GED preparation coursework (Malkus & Sen, 2011). Those who took the voluntary classes had significant academic weaknesses that needed to be addressed and had a history of poor academic performance (Tyler & Lofstrom, 2010).

Many higher education students at various stages of their academic career felt a form of math anxiety, test anxiety, or imposter syndrome (Kanar, 2014). This feeling of academic weakness was heightened among students participating in the GED program because they had a past record of having given up on the goal of a high school diploma, which was a goal they valued enough to return to school (LaDousa & Baldrige, 2017). Their academic weakness, however, was what tugged at the hearts of teachers of students in GED programs (Hur et al., 2016). Teachers of students in GED programs saw the potential of receiving a diploma as a springboard for extended achievements and knew the external circumstances or obstacles that caused these students to quit the first time could be overcome (L. Saecheo,
personal communication, 2018; Dweck, 2016). The dynamics of the relationship among students were stronger, which gave teachers more opportunities to find a purpose or flow in what they did (Csikszentmihalyi, 1990, 1997; Warren, 2006).

**Giving.**

**Receiving.** Students in GED programs were unaware of the underpinnings of the education system. They were the students who somehow became stuck and fell in a crack that many in educational circles had always found a mystery to mend (Sampson, 2016; Vance, 2016). When re-entering school to study for a GED exam, they attached to the first person they encountered relationally, which usually was the teacher (Ladousa & Baldrige, 2017). However, GED programs that had high turnover rates and inadequate funding caused students to trust without providing a soft learning environment to thrive, due to voluntary requests or demands made upon teachers that caused them to be dissatisfied with circumstances to the point of leaving this arena of teaching (LaDousa & Baldrige, 2017). Students received the effects of this situation with teachers who may not have felt flow in their profession, nor were committed to the students (Csikszentmihalyi, 1990; Gardner, 1991).

**Intangible Benefits Teachers and Administrators Received from Students in GED Programs.** At first glance, it seemed as if the government was giving the students the opportunity to study and students were receiving services. However, the longevity of what the students gave through their determination in studies and living a productive life was a compelling motivation for teachers (Tyler & Loftstrom, 2010). When looking into the research about student giving, the results came out as teachers giving to students and not how students were giving (Garside et al., 2009; Kellahan, 2019).

The fifth characteristic of growth mindset was enjoying the success of others (Dweck, 2016). When administrators enjoyed the success of the students and teachers, the success of
teachers was beyond the confines of the classroom (Moneta, 2017). Acceptance and a desire to engage with the teachers to work as a community provided the best educational services for students (Delle Fave & Massmini, 2003). Students in GED programs gave to their teachers vicariously by allowing teachers to participate in the shifting of students’ mental perspective into a growth mindset with their actions of re-entering the education system (Claro et al., 2016; Csikszentmihalyi, 1990; Dweck, 1999, 2016). The process of becoming students of the GED program embodied many of these qualities stated earlier in this chapter discussing the five characteristics of growth mindset: challenges, obstacles, effort, criticism, and success of others (Dweck, 2016). Dweck (1999) stated that when students thought their intellect could be changed, they had a growth mindset. Jackson and Csikszentmihalyi (1990) acknowledged that challenge was a perception that could change, and these students were changing their perception of their capabilities. These students embraced the challenge and change of a previous failure with effort through the attendance of classes. This growth mindset showed a robust correlation to higher academic achievement (Claro et al., 2016). Claro et al. (2016) did a national study in Chile that discovered students in lower-income families “were less likely to hold a growth mindset than their wealthier peers” (p. 8664). When students walked through the doors of a classroom, they were giving the gift of growth.

According to Grant (2013), this act of giving of themselves to the cause of achieving a GED certificate made students of GED programs have a greater affinity to the education system, which had lasting effects on their children and those around them. There was an expectation that with a little grit, they could have achieved (Duckworth, 2016). Teachers of students in GED programs knew these students would have an extremely difficult time pursuing a certificate on their own, so they gave to be part of the bigger purpose of uplifting humanity (Csikszentmihalyi, 1997; Duckworth, 2016; Hur et al., 2016). The gift students in GED programs offered were intangible. Yet, the hope of the tangible accomplishments
brought about joy, relatedness, and flow among teachers (Csikszentmihalyi, 1997; Deci & Flaste, 1995).

The Intersection of Teachers, Administrators, and Students

An unstated goal among many teachers and the education system was to transform lives in the form of social mobility through the dissemination of academic content (Selingo, 2020; Stevens, 2007). Some students were self-sufficient and had a great deal of parental and societal support. Students in GED programs were a group of students who needed additional instruction and support. In the elementary grades, they were the students who came to school with cockroaches in their backpacks and cried of hunger (schoolteacher, personal communication, 1996). In middle school, these students struggled with content even though they were able to keep up in elementary school. In college, the high-achieving students from lacking backgrounds were labeled first-generation college students (Toutkoushian et al., 2018). The paradox in teaching first-generation college students was evident. They required more effort to educate with less quantifiable results, but they also pulled at the heartstrings of teaching as a special calling (Brooks, 2011; Hur et al., 2018). This group of students, if nurtured correctly, benefitted the most from the sacrifice of a loving teacher (LaDousa & Baldrige, 2017). This research strove to focus on a select group of students and academic settings to understand whether years of teaching influenced the psychological qualities of flow among teachers of GED programs (Culbertson et al., 2015; Zumeta et al., 2016). To answer the psychological stance of teachers serving GED programs, research on flow levels in the form of work absorption, work enjoyment, and intrinsic work motivation and years teaching was conducted (Bakker, 2008; Moneta, 2012).

Feedback

To encourage the presence of flow, there was a presence of frequent thoughtful feedback, which was an outward interaction (Csikszentmihalyi, 1975). Schiepe-Tiska and
Engeser (2012) wrote about flow in nonachievement situations, but most of the literature focused on an element of outward results (Csikszentmihalyi, 1990). However, in the literature review, there were so many components to a teacher in the GED program, including different people, administrators, students, and teachers that had different goals, that the feedback given to teachers could be overwhelming (Sizer, 1992). Dweck (2016) acknowledged this in the characteristics of growth mindset by stating the probability of criticism and obstacles in growth. Deci (1972) stated that positive verbal feedback had gender differences, with men being influenced and women having minimal effect (Lepper, 2016). This research helped to aid in the understanding of teacher satisfaction and teacher motivation by eliminating a small element of the dross by focusing on participants who had one goal: dissemination of content and achievement of having students pass the GED exam. The feedback in this setting of the GED program became a specific relational experience in remembering that one life had made a unique transformation from not attaining a high school diploma to attaining a GED.

**Boundaries**

The research results could also have been used as a negative tool for administrators. Knowing that certain years were peak performance years for teachers, administrators may have opted to preemptively dismiss teachers who went beyond their optimal years, even though they still had many years of good teaching within them (Duckworth, 2016). The results of the research needed to be treated with a light touch, knowing that teachers had an ebb and flow in their teaching capacities and levels of fulfillment (Csikszentmihalyi, 1975). Furthermore, a teacher’s contribution to educating the critical mass needed to be acknowledged and appreciated. Grant (2013) also acknowledged that there was a group of givers who were in the bottom wage-earning category, and because they gave so much, they could not function properly (Cloud & Townsend, 1992). Grant’s (2013) suggestion was to subtly evade giving in certain circumstances to thwart takers and establish a good balance.
Similarly, Duhigg (2016) acknowledged the unhealthy nature of being overrun through lack of boundaries and suggested doing minor acts of disobedience to improve motivation. Albeit phrased strongly, this act of going against the stream to find one’s flow could be an appropriate piece of advice to give to teachers (Csikszentmihalyi, 1990; Duhigg, 2016; Grant, 2013; Stanny, 2004).

**Significance of the Research**

**Time**

Csikszentmihalyi (1975) made a pointed argument of the relationship between skill level and challenge (Fong et al., 2015; Jackson & Csikszentmihalyi, 1990; Landhäußer & Keller, 2012). Level of skill had a temporal relationship because an individual who had flow increased skill levels with the passage of time (Csikszentmihalyi, 1975). Therefore, something that gave an individual flow 10 years ago did not necessarily produce the same level of flow or even any level of flow at a different period of skill level (Csikszentmihalyi, 1975; Fong et al., 2015). In other words, the skill levels of veteran teachers were different from new teachers, and the challenges presented had to adjust to the skill levels that teachers had acquired (Csikszentmihalyi, 1975).

Beyond skill level, there was a temporal aspect of stages of life that needed to be understood among teachers (Bella et al., 1996). The initial stage of teaching had a euphoric sensation with an overwhelming sense of inadequacies that brought about a delicate energy. As time continued, the dynamics of teaching varied depending on a teacher’s stage in life. Duckworth (2016) addressed this as the plateau level where individuals needed to persevere to grow from skills to achievement (Foer, 2011). Dweck (2006) and Tetlock and Gardner (2015) addressed this plateau situation as an opportunity to pivot. Csikszentmihalyi (1997) addressed the situation by calling those that traversed this transition as individuals with autotelic personalities. He even went further and acknowledged that historically, churches
were a strong source in providing discipline and persevering qualities to members to find their flow, and how the masses were being less affected by the church in this manner. With this understanding, more research was needed to be done to find the temporal sweet spots in teaching and to address the value of being a teacher while acknowledging these stages of life or stages of a career that waned in enthusiasm.

**Life Coaching**

There were difficulties in how to address the teaching workforce (Goldstein, 2014). Using the findings of the research as a marker of zone of proximal development among the teaching workforce, young teachers could have been encouraged to know there were fertile years ahead consisting of growth and flow (Csikszentmihalyi, 1990; Dweck, 2016; Newman, 2018). Burnett and Evans (2016) brought in another element to understanding teachers and flow by addressing the concept that some people were in certain professions to have flow in their lives outside of the work field (Csikszentmihalyi, 1990; Dell Fave & Massimini, 2003). In other words, to achieve a critical mass of qualified teachers, the standard of expecting complete commitment to the profession to the point that other aspects of teachers’ lives were in disarray needed to be rethought (Burnett & Evans, 2016). Sometimes, teachers fulfilling attainable duties needed to be acknowledged as sufficient. The ideal scenario within the education system would have been for there to have been a large critical mass of teachers that were so engrossed in their work to the point of giving self-sacrificially, and America was touted as so forward thinking for their implementation of flow to create this unique system (Csikszentmihalyi, 2012). However, having a solid critical mass of qualified teachers engaged in their work at an achievable level was also a viable option (Burnett & Evans, 2016).

Some teachers were in the profession for financial prospects and found their flow in other areas of their life, such as their children, church, or hobby (Burnett & Evans, 2016;
Delle Fave & Massimini, 2003). Adults could have had a sense of purpose and leisure that may not have been directly correlated to their work environment (Delle Fave & Massimini, 2003). Administrators needed to have an internal understanding of the possibility that teachers could have continued their profession while finding flow in other areas of their lives (Burnett & Evans, 2016; Delle Fave & Massimini, 2003). Realistically, there was a teacher shortage and a reason for that shortage (Ingersoll et al., 2017). The demands of the teaching profession were so great as to cause teachers to withdraw from other areas of their lives (Sizer, 1992). According to Gladwell’s (2013) observation of the optimal salary, teaching provided a sustainable salary, and teachers pursued their passions in other ways. If that were the case, the teaching profession needed to be structured in a sustainable way for teachers to teach a realistic amount and have a life outside of the classroom.

**Love and Respect**

Eggerichs (2010), in his book, *Love and Respect*, observed how the method in which the message was portrayed could have had a stronger implication on the message than the actual wording. However, there was a correlation between actions and words. Administrators and educational policymakers wrote about the importance of teachers and the need to address teacher shortage, while simultaneously not compensating financially or with status (Cornali, 2019). James 2:26 stated, “faith without deeds is dead” (*The Holy Bible, New International Version*, 2011). This passage was in reference to a believer’s faith in God and how one’s actions showed the location of the heart. If there was genuine belief in the importance of teachers as part of the academic disciple-making process, then verifiable actions showing this belief in teachers needed to be manifested.

Knowing there was a dichotomy between teachers’ actions, words, and actual contentment with their profession should have been recognized. Teachers needed time to self-reflect and find ways in which they felt intrinsic motivation for their profession (Deci &
Faith

Happiness. Csikszentmihalyi (1990) started his book, *Flow*, with a reference to Aristotle that “more than anything else, men and women seek happiness” (p. 1). Csikszentmihalyi (1990) then developed the concept of happiness as something that needed to be cultivated amidst a plethora of frustration. A key ingredient in pursuing happiness was the “support of faith” (Csikszentmihalyi, 1990, p. 8). Without faith, an individual strove to seek earthly goals, and an overemphasis on earthly goals deterred from the quality of life (Csikszentmihalyi, 1990, 1993; Deci & Flaste, 1995). Csikszentmihalyi (1990) did not emphasize a particular religion, and this research took place in a secular public-school environment. However, to flesh out and understand the concept of faith in flow, a particular religion, Christianity, was explored to understand the theoretical framework of flow with faith.

Flow in Relation to the Christian Religion. Before concluding with the teachings of positive psychology, growth mindset, and flow, a closer look at the hidden message within these frameworks was analyzed by comparing them to concepts taught in Christian counseling and the biblical principle of hope (Adams, 1973; Csikszentmihalyi, 1990; Dweck, 2016; Seligman, 2006; Seligman & Csikszentmihalyi, 2000). To delve further into the research of flow and growth mindset, a foundation of whether these views could have been
represented in Scripture among believers needed to be addressed (Csikszentmihalyi, 1990; Dweck, 2016). Ultimately, a biblical worldview was deemed most important.

**Created in the Image of God.** The axiological premise with which the theoretical frameworks was used was seeing people created in the image of God (*The Holy Bible, New International Version*, 2011, Gen. 1:26). Within the views of the theoretical frameworks was the strong belief in valuing an individual because of their humanity (Freire, 1968/2018; *The Holy Bible, New International Version*, 2011, Gen. 1:27). This literature review looked at the internal underpinnings within education that sustained and discouraged teachers in the workforce. With that understanding, there was a biblical emphasis that teachers as well as other human beings involved in the triadic relationship—administrators, teachers, and students—were necessary and valuable in producing a community conducive to flow (Weisberg et al., 2009; Zumeta et al., 2016).

**Christian Counseling.** Growth mindset, flow, and giving all stem from positive psychology, which was introduced by Seligman and Csikszentmihalyi (2000) and had a secular perspective of achieving enjoyment (Csikszentmihalyi, 1990; Dweck, 2016; Grant, 2013; McQuaid, 2017). To get a Christian perspective of counseling, Adams’ (1973/2007) book, *The Christian Counselor’s Manual*, which espoused the views of nouthetic counseling, was consulted to assess where the two views, positive psychology and nouthetic counseling, aligned and contradicted. Both views agreed with the concept of positive self-talk as a way of changing thought patterns (Beck, 1988; Duckworth, 2016; Meyer, 1995). Scripture placed a standard for positive self-talk with the verse, “that in all things God works for the good of those who love him, who have been called according to his purpose” (*The Holy Bible, New International Version*, 2011, Rom. 8:28). Teachers of students in GED programs participated in placating negative thoughts by going through a process of positive self-talk and having faith that God works for the good of him who has been called (Beck, 2011).
The big difference in the views of growth mindset, flow, giving, and nouthetic counseling was the role of the person that took on a counseling role (Adams, 1973/2007; Csikszentmihalyi, 1990; Dweck, 2016; Grant, 2013). Adams (1973/2007) took the view that the responsibility of counseling was on the pastor and only the pastor. Therefore, growth mindset, flow, and giving were viewed as more of a large-scale effort of self-encouragement rather than direct counseling (Adams, 1973/2007; Csikszentmihalyi, 1990; Duckworth, 2016; Dweck, 2016). Nouthetic counseling, growth mindset, flow, and giving had a similar goal of internal transformation, which, in this research, hoped to result in outward academic achievements that was administered as an educational discipline (Adams, 1973/2007; Csikszentmihalyi, 1990; Duckworth, 2016; Dweck, 2016; Grant, 2013).

**Hope.** Romans 5:3-5 stated, “we also rejoice in our sufferings, because we know that suffering produces perseverance; perseverance, character; and character, hope. And hope does not disappoint us” (*The Holy Bible, New International Version*, 2011). This passage described the process of growing in grit or hope through a growth mindset (Duckworth, 2016; Dweck, 2016). Knowing the hardships of teachers, and especially teachers of students in GED programs, did not make the situation easier (Seligman, 2006). However, there was an understanding that difficulties were needed to produce certain kinds of fruit (Moore, 2020). Teaching was a profession that required time and dedication (Duckworth, 2016). There must have been a journey of persevering for several years to achieve a level of flow through a growth mindset (Csikszentmihalyi, 1990; Dweck, 2016; Gladwell, 2008). Csikszentmihalyi (1990) stumbled upon the theory of flow through the suffering of experiencing deaths of beloveds and being exposed to a community of grievers (Csikszentmihalyi, 2014; Nuzpl, 2018; Pink, 2009). Givers who are the top 15% of wage earners went through the process of suffering, perseverance, character, and hope (Grant, 2013). The goal of Csikszentmihalyi (2014) was to create research that promoted a society in which the four horsemen of World
War II did not return. In a similar thought process, Christians had their hope in God with a belief of making the world a better place.

Love. Luke 6:38 stated, “give, and it will be given to you. A good measure, pressed down, shaken together and running over…” (The Holy Bible, New International Version, 2011). Giving was a central premise amongst Christian believers. The ultimate example was Christ giving His life to rescue humanity (The Holy Bible, New International Version, 2011). To believers, giving was a manifestation of love. They strove to emulate this level of giving by sacrificing their time and talents for the greater good (The Holy Bible, New International Version, 2011). Intuitively, great authors and theorists realized the truth and necessity of this type of giving to achieve a level of flow, or in other words, among Christian believers, a level of self-disciplined godliness (Csikszentmihalyi, 1990, 1993; Grant, 2013; The Holy Bible, New International Version, 2011, Phil. 3:14).

Summary

The theoretical frameworks of growth mindset and flow theory were woven into the setting of teachers of students in GED programs in hopes of achieving a quantifiable understanding of the psychological journey of work satisfaction and work motivation among teachers (Csikszentmihalyi, 1975, 1990; Dweck, 2016). Both growth mindset and flow theory were from positive psychology and focused on internal means of overcoming obstacles (Csikszentmihalyi, 1990; Dweck, 2016; Seligman, 2006). Focusing on the gap in the literature with teacher retention and positive psychology, a closer look at the related literature was conducted (Sterke et al., 2015). First, the purpose of teaching as a special vocation, calling, or gifting was researched (Brooks, 2015; Warren, 2006). The research was based on first-generation college students who went through psychological changes and had financial hardships and difficulties in academics (Atherton, 2014; Covarrubias & Fryberg, 2015; Hébert, 2017; Pratt, 2017; Wibrowski et al., 2016). The concepts of persevering the 10,000
hours through grit to reach the zone of proximal development in which teachers felt the
maximum amount of growth mindset and flow were discussed (Gladwell, 2008). How growth
mindset and flow were in alignment with Christian counseling and the results of hope
through suffering and giving concluded the literature review of teachers of students in GED
programs (Adams, 1973; Csikszentmihalyi, 1990; Dweck, 2016).
CHAPTER THREE: METHODS

Overview

This chapter described the design, participants, setting, instrumentation, procedures, and data analysis of this research. The criterion and predictor variables were stated, and the convergent, construct, predictive validity, and reliability of the instrument were shared. This study was a bivariate linear regression analysis investigating the predictive relationship between the number of years teaching among teachers of GED programs and evidence of flow shown in work absorption, work enjoyment, and intrinsic work motivation.

Design

This research pursued a correlation research design consisting of three separate bivariate linear regression analyses (Warner, 2013). This was a non-experimental design to understand if there was a predictive relationship of the presence of flow while teaching students in GED programs and the number of years teaching (Gall et al., 2007). The criterion variables were work absorption, work enjoyment, and intrinsic work motivation. The predictor variable was number of years teaching (Bakker, 2008; Shernoff et al., 2014). This research survey gathered data through group testing, demographics surveys (see Appendix A for the Participant Demographics Instrument), and self-reported opinions about levels of flow among teachers of GED programs (Adult and Continuing Education of Central Virginia, 2019; Bakker, 2008; Gall et al., 2007; Rudestam & Newton, 2007). This research was a subjective measurement design, in which numerical scores of the criterion variables of work absorption, work enjoyment, and intrinsic work motivation were attained (Bakker, 2008). A bivariate linear regression design was most appropriate for this study because the information gathered about the predictive nature of years teaching and evidence of flow brought about a deeper understanding of the man-made phenomenon of teaching (Gall et al., 2007).
There was one predictor variable, years teaching among GED teachers, and three criterion variables of flow shown in work absorption, work enjoyment, and intrinsic work motivation (Bakker, 2008). The predictor variable, number of years, was selected because of the delicate balance of skill level and challenge that was required to achieve flow (Csikszentmihalyi, 1975; Fong et al., 2015). Csikszentmihalyi (1997) pointed out that this delicate balance of skill level and challenge was why individuals who have had flow on a particular activity years ago may not have had the same flow level for the same activity at a different time because that person’s skill level had changed. The criterion variables, work absorption, work enjoyment, and intrinsic work motivation, were selected because they were three independent flow dimensions measured in the WOLF inventory (Bakker, 2008). Work absorption was defined as, “a state of total concentration, whereby employees are totally immersed in their work” (Bakker, 2008, p. 401). Work enjoyment was defined as a description of “employees who enjoy their work and feel happy and make positive judgments about the quality of their working life” (Bakker, 2008, p. 401). Intrinsic work motivation was defined as “performing a certain work-related activity with the aim of experiencing the inherent pleasure and satisfaction of the activity” (Bakker, 2008, p. 401).

**Research Questions**

The research questions for this study were:

**RQ1:** How accurately can years of teaching be used as a predictive factor to determine levels of work absorption among teachers of GED programs?

**RQ2:** How accurately can years of teaching be used as a predictive factor to determine levels of work enjoyment among teachers of GED programs?

**RQ3:** How accurately can years of teaching be used as a predictive factor to determine levels of intrinsic work motivation among teachers of GED programs?
Hypotheses

The null hypotheses for this study were:

**RQ1:** How accurately can years of teaching be used as a predictive factor to determine levels of work absorption among teachers of GED programs?

- **H₀₁:** There is no statistically significant predictive correlation between years of teaching and levels of work absorption among teachers of GED programs as measured by the WOLF Inventory.

**RQ2:** How accurately can years of teaching be used as a predictive factor to determine levels of work enjoyment among teachers of GED programs?

- **H₀₂:** There is no statistically significant predictive correlation between years of teaching and levels of work enjoyment among teachers of GED programs as measured by the WOLF Inventory.

**RQ3:** How accurately can years of teaching be used as a predictive factor to determine levels of intrinsic work motivation among teachers of GED programs?

- **H₀₃:** There is no statistically significant predictive correlation between years of teaching and levels of intrinsic work motivation among teachers of GED programs as measured by the WOLF Inventory.

Participants and Setting

**Population**

According to Warner (2013, p. 362), a bivariate linear regression research study with three criterion variables required a minimum of 108 participants \(N > 104 + k\) to achieve an alpha level of .05 for a medium effect size of .7. This research study consisted of an accessible population of 112 GED-program teachers, thus fulfilling the sample requirement (Gall et al., 2007). This was a convenience cluster sampling of teachers in GED programs during the 2020-2021 school year (Gall et al., 2007). Teachers from the states of Virginia and North Carolina were contacted to participate in the study. Those who were contacted also shared the WOLF survey with those they knew who were outside of Virginia and North Carolina (Bakker, 2008; L. Saechao, personal communication, 2021). The results came in
anonymously, so exactly where the participants were from was not indicated. However, the assumption was that most of the participants were from Virginia and North Carolina with the qualifying characteristic of those serving the GED programs.

**Sample**

The field of teaching was vast, and to minimize variances from level of flow among different types of teachers, a specific group of teachers that taught a similar population was selected. Most of the participants in the regions consisted of teachers that focused on the GED program. Those included among teachers of the GED program were 70 teachers primarily focused on GED content, 4 teachers primarily focused on ESOL content, 1 teacher’s aid, and 37 other positions, since all four of these groups interchangeably interacted with students in the GED program. The students were important to include in the demographics because who a teacher teaches was part of the defining role given to the profession.

The average length of time teaching among the participants was 18 years with over half of the participants having 20 or fewer years of teaching (see Figure 2). In mainstream education, the average length of time teaching was 14 years (Walker, 2018). The range of years teaching was zero years for a first-year teacher to 48 years as a veteran teacher. The two teaching groups with the greatest frequencies were 1-5 years of teaching and 16-20 years of teaching.
Figure 2

*Number of Years Teaching*

Note. Histogram showing the frequencies of the number of years teaching for participants.

There were 19 male participants and 93 female participants. Among the participants, five were aged 20-30 years, 12 participants were aged 31-40 years, 33 participants were aged 41-50 years, and 62 participants were aged 51+ years. Among the participants, over 50% were over 51 years (see Figure 3).

Figure 3

*Age of Participants*

Note. Histogram showing the frequencies of the ages of participants.
Three participants had earned high school diplomas, 31 participants had earned bachelor’s degrees, two participants held teaching credentials, 63 participants had earned master’s degrees, and nine participants had earned doctoral degrees. More than half of the participants held a master’s degree, which showed a higher level of achievement. The second most-frequent education level was a bachelor’s degree (see Figure 4).

**Figure 4**

*Level of Education of Participants*

*Note.* Histogram showing the highest level of education achieved by participants.
Most participants identified themselves solely as GED teachers. The positions that interchangeably taught GED content were: 1=GED teachers, 2=ESOL teachers, 3=Teacher’s aide, and 4=other (see Figure 5).

**Figure 5**

*Job Position of Participants*

*Note.* Histogram showing subjects taught by participants.
Setting

At the time of the study, the Virginia Department of Education had 22 regions (see Figure 6) serving the adult community throughout the state (Virginia Department of Education, 2020). North Carolina conducted their GED program through the College and Career Reading Program among community colleges (NC Community Colleges, 2021). Those who were teachers in the North Carolina College and Career Reading Program were contacted and asked to participate as well (NC Community Colleges, 2021). The setting of these regions consisted of rural areas, small cities, and large cities. The GED programs in these two states had open enrollment, where students voluntarily came in hopes of achieving a GED or learning English. These programs were sustained through government-granted funds (Adult and Continuing Education of Central Virginia, 2019; Virginia Department of Education, 2020; S. Pratt, personal communication, 2018). Most of the programs were face-to-face instruction in small group or individual settings with additional work that students completed at home via proxy hours (K. Smith, personal communication, 2019). A small minority of instruction took place virtually (K. Smith, personal communication, 2019). The participants were naturally occurring groups established through a work commitment, and they participated in a seven-point Likert WOLF inventory to see if there was a correlation between years of teaching and level of flow to understand levels of internal motivation among teachers of students in GED programs (Bakker, 2007; Csikszentmihalyi, 1990; Deci & Flaste, 1995; Renninger & Hidi, 2016).
Figure 6

*Virginia GED Regional Programs*

*Note.* Map showing the 22 regions in Virginia for GED programs (Virginia Department of Education, 2020).

**Instrumentation**

The participants were given two instruments to gather information. The first instrument was a demographics questionnaire (see Appendix A) created by the researcher asking the participants’ age and number of years teaching. The purpose of this instrument was to provide a crucial component of the research question, the number of years that a teacher taught, and how the number of years correlated with levels of flow. The first instrument was created by the researcher and given to her employer at Adult and Continuing Education of Central Virginia (2019) for feedback. The second instrument, called the WOLF Inventory, was a seven-point Likert questionnaire, consisting of 13 questions (Bakker, 2008). The purpose of the WOLF inventory administered to teachers of students in the GED program was to measure whether there was a predictive relationship between the number of years teaching and the three aspects of flow expressed in terms of work absorption, work enjoyment, and intrinsic work motivation (Bakker, 2008, Csikszentmihalyi, 1975; Llorens & Salanova, 2017).
Three criterion variables were measured: work absorption, work enjoyment, and intrinsic work motivation (Bakker, 2008). Work absorption was defined as how teachers rated the extent to which they were immersed, focused, and distracted with their work (Bakker, 2008). A quality of absorption was a different perspective of time (Csikszentmihalyi, 1990). The time that teachers were working went much faster than what would have constituted a regular pace perspective with teachers focused on the task of teaching with an undistracted vigor (Csikszentmihalyi, 1990). Absorption at work was measured through the first four questions of the WOLF inventory created by Bakker (2008), where teachers rated the extent to which they were immersed, focused, and distracted with their work. Absorption was a recurrent theme and tangible characteristic amongst those who experienced flow, in which hours passed that seemed like minutes (Csikszentmihalyi, 1990).

Work enjoyment was measured by questions five through eight in the WOLF inventory, where teachers rated their levels of feeling good, having enjoyment, and being happy or cheerful (Bakker 2008). Within the formal definition of flow, work enjoyment was stated as “the experience itself is so enjoyable that people will do it even at great cost” (Csikszentmihalyi, 1990, p. 4). The sacrifices teachers went through in serving their students somehow seemed to fade during moments in which important content was being transferred and something new was sprouting in the minds of the students. At those moments, the experience of teaching became extremely enjoyable, and the quality of life for teachers increased (Diener & Seligman, 2002; Rodriguez et al., 2019).

Intrinsic work motivation was measured by questions nine through 13 in the WOLF inventory, where teachers self-assessed their motivation with their work. Intrinsic work motivation was defined as willingness to sacrifice monetary compensation, engagement in work outside of work hours, enjoyment in work, and location of reward for the work (Bakker, 2008; Deci & Flaste, 1995). Deci and Flaste (1995) gave six different types of motivation or
aspirations: money, fame, beauty, competence, autonomy, and relatedness. The first three, money, fame, and beauty, were extrinsic motivators, and competence, autonomy, and relatedness were intrinsic motivators (Deci & Flaste, 1995). As stated in the literature review, teachers found what they did to have an altruistic quality that worked well with intrinsic motivation (Brooks, 2015; Cornali, 2019; Hur et al., 2018). Teachers were needed in the American education system and understanding their intrinsic motivators could have aided in creating more reproducible intrinsic motivators for teachers to have continued in the profession (Csikszentmihalyi, 1975; Deci & Flaste, 1995).

Reliability and Validity

The WOLF inventory was a self-reporting questionnaire with internal consistency and a test-retest reliability score of Cronbach $\alpha = .80$ for work absorption, .90 for work enjoyment, and .75 for intrinsic work motivation (Bakker, 2008; Taber, 2018). Bakker (2008) attained face validity by receiving feedback from five organizational psychologists on the writing of the questionnaire. Convergent validity (holistic description of flow $r=.59, p<.001$; frequency of this experience $r=.55, p<.001$) was achieved by looking at the three flow dimensions with the holistic description of flow (Bakker, 2008). Construct validity was achieved by analyzing the three flow dimensions with the five job characteristics which were: “work pressure,” “emotional demands,” “autonomy,” “social support colleagues,” and “opportunities for self-growth” (Bakker, 2008, p. 408). Predictive validity was achieved by looking at the two outcomes of in-role and extra-role performance in relation to the three flow dimensions (Bakker, 2008).

Background of Instrument

Historically, the initial quantitative measurement tool used to measure flow was the flow questionnaire (Bakker, 2008; Csikszentmihalyi, 1990; Moneta, 2012). This questionnaire measured flow while lightly measuring the subjective experience component
that dealt with challenges and skills (Moneta, 2012). After the initial flow questionnaire was created, two other measurement tools evolved: experience sampling method and the standardized scale of the componential approach. The experience sampling method focused on the subjective state of the participants in relation to flow and required participants to give eight different feedbacks at various times documenting their actions and subjective feelings. The standardized scale of the componential approach focused on the nine components of flow: concentration, goals, feedback, balance, control, merging, autotelic, self-consciousness, and time (Moneta, 2012).

In 2012, Moneta (2012) acknowledged that there was a large quantity of developed and validated measurement tools researching flow. The reason for all the various measures was because of the growth of flow theory and the expansive ways in which this theory could be explored. Flow theory, which originally started as qualitative psychological research, had grown and had been used in the fields of anthropology, sociology, and eventually sports psychology (Csikszentmihalyi, 2012). Initially, flow theory was acknowledged as an obvious observation without any benefit to academic circles and was mostly disregarded (Csikszentmihalyi, 2012). Key individuals, such as Massimini et al. (1987), Csikszentmihalyi (1975), and Seligman (2006), brought the potential of researching flow theory to the forefront (Csikszentmihalyi, 1990; Seligman & Csikszentmihalyi, 2000). What initially started with interest from a few disciplines had expanded to encompass work satisfaction, education, business, and the attention of three prime ministers who desired to implement flow theory to retain working citizens (Ceja & Navarro, 2017; Csikszentmihalyi, 2012; Pink, 2009). With each frontier endeavor, there were adaptations to the qualitative and quantitative measurement of flow with explanations of validity and reliability coefficients (Bakker, 2008; Moneta, 2012; Wolfigiel & Czerw, 2017).
The WOLF inventory was an original instrument developed by Bakker (2008). This instrument was appropriate to gauge the level of flow among teachers of students in GED programs because the questions provided quantifiable and reliable measures (Bakker, 2008). Flow theory had been used in numerous peer-reviewed articles regarding work, teaching, and music (Chirico et al., 2015; Delle Fave & Massimini, 2003; Olcar et al., 2017; Wolfgiel & Czerw, 2017). Harmat et al. (2016) formed the European Flow Researchers Network (EFRN), which resulted in a peer-reviewed book focusing on nine different areas in which to research flow. An area of focus among EFRN was education in flow. Heutte et al. (2016) acknowledged that some of the flow research required an extensive amount of involvement among the participants and could have been considered intrusive. Therefore, simpler questionnaires were recommended to continue flow research, and the WOLF inventory (Bakker, 2008) was one of the shorter questionnaires within education in flow that was mentioned (Huette et al, 2016). Moneta (2012) referenced the WOLF inventory when giving an analysis of various flow measurements, and Rodriguez et al. (2019) used the WOLF inventory when going beyond cultural boundaries to analyze multinational corporations. Wolfgiel and Czerw (2017) also used the WOLF inventory as a base from which to create the FLOW-W questionnaire.

Content of Instrument

The instrument contained 13 questions measuring three areas of flow: work absorption, work enjoyment, and intrinsic work motivation. Participants responded on a range of Never to Always (Bakker, 2008). Participants responded: Never = 1, Almost Never = 2, Sometimes = 3, Regularly = 4, Often = 5, Very Often = 6, or Always = 7. Questions one through four focused on absorption, questions five to eight focused on work enjoyment, and questions nine to 13 focused on intrinsic work motivation. The results of the scores ranged from 13-91. Those who scored a 13 on the questionnaire were deemed as having a low level
of flow in teaching. A score of 91 implied that participants had a very high level of flow in all three areas while teaching students in the GED program. For the predictor variables, absorption and work enjoyment, the scores ranged from 4-28. Intrinsic work motivation scores ranged from 5-35. This instrument was used in a work setting to assess the levels of flow among employees. Since the participants were employees of GED programs in Virginia and North Carolina, the parameters of the targeted participant population were met.

The instrument took under 10 minutes to complete and was administered in a virtual setting, due to COVID-19, to achieve the maximum percentage of participation (see Appendix B for Instructions to Participants). Having a limited amount of time to respond to the WOLF inventory produced the most genuine self-reflective response. The scores were manually inputted by the researcher into IBM® Statistical Package for the Social Sciences (SPSS) version 27 for the three bivariate linear regression analyses (Green & Salkind, 2013; Warner, 2013). Permission to use the instrument was granted via email from Netherlands by Bakker (2008), the researcher who invented the instrument. A screen shot of the dialogue was included in Appendix C.

**Procedures**

The first step in implementing this study was to establish a definition of the research objective (Gall et al., 2007). The purpose of this research was to discover knowledge of whether there were correlative factors among the number of years that teachers of students in the GED program were in the profession and levels of flow.

The second step of this design was to select a sample (Gall et al., 2007). The convenience sample was teachers of students in the GED programs in Virginia and North Carolina.
The third step of implementing this research was obtaining a questionnaire that was valid and reliable (Gall et al., 2007). The WOLF inventory fulfilled these qualifications and was the instrument of choice (Bakker, 2008).

The fourth step of implementing this research was pre-contacting the gatekeepers of the sample (see Appendix D for Letters to Gatekeepers), which consisted of regional leaders in Virginia and College and Career Readiness program providers in community colleges in North Carolina (Gall et al., 2007; NC Community Colleges, 2021; Virginia Department of Education, 2020). The directors of the regions in Virginia that served students in the GED program were approached informally prior to receiving Liberty University Institutional Review Board (IRB) approval to achieve rapport. Consent was given to insure a minimum number of participants. The steps of the IRB checklist provided by Liberty University (n.d.) was followed to receive IRB approval (see Appendix E). After receiving IRB approval, formal dialogue with the directors, or gatekeepers, of the participants began. The initial hopes of finding an annual or biannual staff development where most of the teachers of the institution were present had to be adjusted due to many facilities limiting or banning in-person meetings due to COVID-19 precautions (see Appendix D). The process of data gathering shifted from face-to-face meetings to attaining participants through virtual means, and the participant geographic boundaries were expanded from one state, Virginia, to include North Carolina as well. The procedure of how the research should have been conducted in normal times was documented in hopes that when the restrictions of face-to-face meetings are lifted, further research could be conducted to advance this research, as stated in Chapter Five.

The fifth step was writing a cover letter to the director and teachers who administered and took the test to influence a higher return rate. The responses from participants were obtained with a participant consent form (Gall et al., 2007, p. 23) (see Appendix F for the Participant Consent Form). Once approval and access via emails was established, teachers of
students in GED programs were given both the demographic survey and WOLF inventory by the researcher to fill out at the same time (Bakker, 2008). The approximate time to answer the questions on both instruments was no more than 10 minutes. A staff development meeting was deemed the most conducive way to achieve a significant percentage of responses and had an atmosphere of comfort, with introspection, for the teachers. Twice a year, teachers of students in the GED program were asked to process what had happened in their classrooms. This situation made teachers of students in GED programs more mentally available to fill out an introspective Likert questionnaire (Gall et al., 2007). Initially the plan was to increase participation by giving out giveaway tickets to participants who returned the questionnaire, with two participants being selected to receive the book, Flow, by Csikszentmihalyi (1990). However, face-to-face staff developments were restricted or cancelled, and there was such a mass dissemination of surveys via emails with anonymous responses, that giving out prizes was not implemented.

The sixth step in implementing this research was to follow up with non-respondents (Gall et al., 2007). The non-respondents were teachers of students in GED programs that were currently employed by the three neighboring regions and were unable to attend the staff development. In the virtual setting, gatekeepers that did not respond to the initial inquiry were sent a follow up letter, which produced an increased number of responses.

The seventh step in implementing this research was to analyze the questionnaire data that was discussed in the next section (Gall et al., 2007).

**Data Analysis**

A bivariate linear regression with three criterion variables was conducted for the three research questions: “How accurately can years of teaching be used as a predictive factor to determine levels of work absorption among teachers of GED programs?”, “How accurately can years of teaching be used as a predictive factor to determine levels of work enjoyment
among teachers of GED programs?”, and “How accurately can years of teaching be used as a predictive factor to determine levels of intrinsic work motivation among teachers of GED programs?” A bivariate linear regression was used since a quantitative predictive variable with statistical power could have been derived to discover levels of flow in relation to the number of years teaching among teachers of GED programs (Grimm & Yarnold, 1997; Warner, 2013). Descriptive statistics, such as the number of years teaching, gender, and level of education, were part of the teacher demographics. Means and standard deviations of the WOLF inventory were gathered to research levels of flow among teachers, as seen in absorption, work enjoyment, and intrinsic work motivation (Bakker, 2008; Green & Salkind, 2013). Data screening for outliers was conducted using a box and whiskers plot (Warner, 2013).

There were five assumptions tests conducted to satisfy this research and increase the inferences drawn (Cohen et al., 2003). First, there was an assumption of normality to assess whether the population distributions were normal (Warner, 2013). Second, there was an assumption of bivariate outliers using scatter plots between the criterion variable and predictor variables (Green & Salkind, 2013; Warner, 2013). Third, there was an assumption of bivariate normal distribution conducted using scatterplots between the predictor variables and criterion variables by looking for a “cigar shape” (Green & Salkind, 2013). Fourth, an assumption of homoscedasticity checking for linearity was conducted (Warner, 2013). Finally, an assumption of the absence of multicollinearity among the criterion variables was conducted (Warner, 2013). The goal was to achieve an alpha level set at $p < .05$. An effect size of .033 for absorption, .034 for work enjoyment, and .054 for intrinsic work motivation was achieved.
Summary

A non-experimental descriptive bivariate linear regression research study using one predictor variable and three criterion variables was conducted among teachers of GED programs to assess a relationship between the number of years taught and level of flow among teachers. The theoretical framework of flow by Csikszentmihalyi (1975) was used to understand this research. The findings of the research showed whether levels of flow among teachers of GED courses in Virginia and North Carolina were predicted by years of teaching using the WOLF inventory (Bakker, 2008; Csikszentmihalyi, 1975).
CHAPTER FOUR: FINDINGS

Overview

Using IBM® SPSS version 27, three separate bivariate regressions were conducted to determine if there were predictive relationships between teaching experience and levels of flow. The criterion variables were levels of work absorption, work enjoyment, and intrinsic work motivation. The predictor variable was years teaching. Data were captured from 112 subjects. Descriptive statistics, data screening, assumptions testing, parametric and nonparametric test results, and inferential analysis were reported. The researcher failed to reject null hypotheses 1, 2, and 3.

Research Questions & Hypotheses

RQ1: How accurately can years of teaching be used as a predictive factor to determine levels of work absorption among teachers of GED programs?

- \( H_01: \) There is no significant predictive correlation between years of teaching and levels of work absorption among teachers of GED programs as measured by the WOLF Inventory.

RQ2: How accurately can years of teaching be used as a predictive factor to determine levels of work enjoyment among teachers of GED programs?

- \( H_02: \) There is no significant predictive correlation between years of teaching and levels of work enjoyment among teachers of GED programs as measured by the WOLF Inventory.

RQ3: How accurately can years of teaching be used as a predictive factor to determine levels of intrinsic work motivation among teachers of GED programs?

- \( H_03: \) There is no significant predictive correlation between years of teaching and levels of intrinsic work motivation among teachers of GED programs as measured by the WOLF Inventory.
Descriptive Statistics

The means and the standard deviations of WOLF inventory results and years of teaching were calculated. The scale for the following data was: Never = 1, Almost Never = 2, Sometimes = 3, Regularly = 4, Often = 5, Very Often = 6, or Always = 7.

The collective mean for all three sections of WOLF: Work Absorption, Work Enjoyment, and Intrinsic Work Motivation, was calculated. The collective mean for each section was derived from adding the results of each question. The collective mean for WOLF: Work Absorption was 4.22, the collective standard deviation was 1.6, and the range was between 2.62-5.82. The collective mean for WOLF: Work Enjoyment was 5.58, the collective standard deviation was 1.12, and the range was between 4.46-6.7. The collective mean for WOLF: Intrinsic Work Motivation was 4.47, the collective standard deviation was 1.59, and the range was between 2.88-6.03. See Table 1 for all means and standard deviations.

Table 1

*Descriptive Statistics: WOLF*

<table>
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<th></th>
<th>M</th>
<th>SD</th>
<th>N</th>
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<td>Absorption</td>
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<td>1.6</td>
<td>112</td>
</tr>
<tr>
<td>Work Enjoyment</td>
<td>5.58</td>
<td>1.12</td>
<td>112</td>
</tr>
<tr>
<td>Intrinsic Work Motivation</td>
<td>4.47</td>
<td>1.59</td>
<td>112</td>
</tr>
<tr>
<td>Years Teaching</td>
<td>17.92</td>
<td>11.81</td>
<td>112</td>
</tr>
</tbody>
</table>
WOLF: Work Enjoyment had the highest collective mean with at least one scale level above WOLF: Work Absorption and WOLF: Work Motivation. In other words, the average response for the work absorption and intrinsic work motivation questions was regularly, while the average response for work enjoyment questions was between often and very often, with the responses being closer to very often.

**Results**

**Data Screening**

Preliminary data screening for outliers was conducted for the predictive variable, years teaching, and the criterion variables, work absorption, work enjoyment, and intrinsic work motivation, using box and whisker plots (Warner, 2013). The results showed a reasonable normal distribution with a few outliers. The outliers were identified and included in the bivariate linear regression. The category with the most outliers had three outliers among teachers who had taught within 1-5 years. See Figures 7-9 for the box and whisker plots.

**Figure 7**

**WOLF: Outliers: Absorption**

*Note.* Box and whisker plot showing absorption by years of teaching groups.
Figure 8

**WOLF: Outliers: Work Enjoyment**

Note. Box and whisker plot showing work enjoyment by years of teaching groups.

Figure 9

**WOLF: Outliers: Intrinsic Work Motivation**

Note. Box and whisker plot showing intrinsic work motivation by years of teaching groups.
Assumptions Tests

There were five assumptions tests conducted to satisfy this research and increase the inferences drawn (Cohen et al., 2003). The first assumptions test was the test of normality to assess whether the population distributions were normal (Warner, 2013). The Kolmogorov-Smirnov test was conducted since the sample group was greater than 50. With an alpha of less than .05, the assumption was violated. However, a non-parametric test in the form of box and whisker plots evidenced a normal distribution (Warner, 2013). See Figures 7-9 for the box and whisker plots. See Table 2 for assumption of normality results.

Table 2
Tests of Normality: WOLF: Work Absorption

<table>
<thead>
<tr>
<th></th>
<th>Kolmogorov-Smirnov&lt;sup&gt;a&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
</tr>
<tr>
<td>Absorption</td>
<td>.105</td>
</tr>
<tr>
<td>Work Enjoyment</td>
<td>.190</td>
</tr>
<tr>
<td>Intrinsic Work Motivation</td>
<td>.104</td>
</tr>
</tbody>
</table>

Note. Absorption, work enjoyment, and intrinsic work motivation assumption of normality results.

<sup>a</sup>Lilliefors Significance Correction
The second assumptions test was the assumption of bivariate outliers using scatterplots between the criterion variables and predictor variable (Green & Salkind, 2013; Warner, 2013). All three results showed a line of fit with a positive relationship. The third assumptions test of bivariate normal distribution was found as the scatterplots resembled a cigar shape. See Figures 10-12 for scatterplots to test assumption of bivariate outliers and assumption of bivariate normal distribution.

**Figure 10**

*WOLF: Bivariate Outliers and Normal Distribution: Absorption*

*Note.* Regression scatterplot showing absorption and years teaching.
Figure 11

**WOLF: Bivariate Outliers and Normal Distribution: Work Enjoyment**

![Regression scatterplot showing work enjoyment and years teaching.](image)

*Note.* Regression scatterplot showing work enjoyment and years teaching.

Figure 12

**WOLF: Bivariate Outliers and Normal Distribution: Intrinsic Work Motivation**

![Regression scatterplot showing intrinsic work motivation and years teaching.](image)

*Note.* Regression scatterplot showing intrinsic work motivation and years teaching.
The fourth assumptions testing was an assumption of homoscedasticity for linearity (Warner, 2013). A scatterplot of the standard residuals against the standardized predicted values of the dependent variable was conducted. All three scatterplots hover around zero; therefore, the assumption of homoscedasticity was met. See Figures 13-15 for scatterplots showing the assumption of homoscedasticity test.

**Figure 13**

*WOLF: Assumption of Homoscedasticity: Absorption*

*Note.* Regression scatterplot showing absorption.
Figure 14

WOLF: Assumption of Homoscedasticity: Work Enjoyment

Note. Regression scatterplot showing work enjoyment.

Figure 15

WOLF: Assumption of Homoscedasticity: Intrinsic Work Motivation

Note. Regression scatter plot showing intrinsic work motivation.
Finally, the fifth assumptions test, assumption of absence of multicollinearity was conducted to verify that the variables were distinct. The Variance Inflation Factors (VIF) were all tenable with scores ranging from 1-5. For absorption, the VIF score was 1.45. The work enjoyment VIF score was 2.51. The intrinsic work motivation VIF score was 2.13. See Table 3 for the results of the test of absence of multicollinearity.

Table 3
Collinearity Statistics

<table>
<thead>
<tr>
<th>Model</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Absorption</td>
<td>.69</td>
<td>1.45</td>
</tr>
<tr>
<td>Work Enjoyment</td>
<td>.40</td>
<td>2.51</td>
</tr>
<tr>
<td>Intrinsic Work Motivation</td>
<td>.47</td>
<td>2.13</td>
</tr>
</tbody>
</table>

Note: Results of the test of the absence of multicollinearity.

aDependent Variable: Years Teaching
Inferential Analysis

A bivariate regression for the data was completed with the predictor variable of years teaching and criterion variables of work absorption, work enjoyment, and intrinsic work motivation.

The researcher failed to reject the first null hypothesis because the significance level, \( r(111) = .005, p = 0.96 \) indicated there was no significant predictive correlation between years teaching and levels of work absorption among teachers of GED programs as measured by the WOLF Inventory. See Tables 4-6.

Table 4

WOLF: Absorption: ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>( F )</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>.36</td>
<td>1</td>
<td>.36</td>
<td>.003</td>
<td>.96b</td>
</tr>
<tr>
<td>Residual</td>
<td>15491.92</td>
<td>110</td>
<td>140.84</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>15492.28</td>
<td>111</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\( ^a \)Dependent Variable: Years Teaching  
\( ^b \)Predictors: (Constant), Absorption

Table 5

WOLF: Absorption: Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>( R )</th>
<th>( R ) Square</th>
<th>Adjusted ( R ) Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.005(^a)</td>
<td>.000</td>
<td>-.009</td>
<td>11.9</td>
</tr>
</tbody>
</table>

\( ^a \)Predictors: (Constant), Absorption

Table 6

WOLF: Absorption: Correlations

<table>
<thead>
<tr>
<th>Absorption</th>
<th>Pearson Correlation</th>
<th>Sig. (2-tailed)</th>
<th>( N )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absorption</td>
<td></td>
<td></td>
<td>112</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Years Teaching</th>
<th>Pearson Correlation</th>
<th>Sig. (2-tailed)</th>
<th>( N )</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.005</td>
<td>.96</td>
<td>112</td>
</tr>
</tbody>
</table>
The researcher failed to reject the second null hypothesis because the significance level \( r(110) = .12, p = .22 \) indicated there was no significant predictive correlation between years teaching and levels of work enjoyment among teachers of GED programs as measured by the WOLF Inventory. See Tables 7-9.

**Table 7**

**WOLF: Work Enjoyment: ANOVA**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>( F )</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Regression</td>
<td>210</td>
<td>1</td>
<td>210</td>
<td>1.51</td>
<td>.22</td>
</tr>
<tr>
<td>Residual</td>
<td>15282</td>
<td>110</td>
<td>139</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>15492</td>
<td>111</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Dependent Variable: Years Teaching

**Table 8**

**WOLF: Work Enjoyment: Model Summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.12a</td>
<td>.01</td>
<td>.005</td>
<td>11.8</td>
</tr>
</tbody>
</table>

*Predictors: (Constant), Work Enjoyment

**Table 9**

**WOLF: Work Enjoyment: Correlations**

<table>
<thead>
<tr>
<th></th>
<th>Work Enjoyment</th>
<th>Years Teaching</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Enjoyment</td>
<td>Pearson Correlation: .12, Sig. (2-tailed): .22, N: 112</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>.12, .22, 112</td>
</tr>
<tr>
<td>Years Teaching</td>
<td>Pearson Correlation: 1, Sig. (2-tailed): .22, N: 112</td>
<td>.12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>.22, 112</td>
</tr>
</tbody>
</table>
The researcher failed to reject the third null hypothesis because the significance level \( r(110) = .14, p = 0.14 \) indicated there was no significant predictive correlation between years teaching and levels of intrinsic work motivation among teachers of GED programs as measured by the WOLF Inventory. See Tables 10-12.

**Table 10**

WOLF: Intrinsic Work Motivation: ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>( F )</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Regression</td>
<td>300</td>
<td>1</td>
<td>300</td>
<td>2.17</td>
<td>.14(^b)</td>
</tr>
<tr>
<td>Residual</td>
<td>15193</td>
<td>110</td>
<td>138</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>15492</td>
<td>111</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^a\)Dependent Variable: Years Teaching  
\(^b\)Predictors: (Constant), Intrinsic Work Motivation

**Table 11**

WOLF: Intrinsic Work Motivation: Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R (^a)</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.14(^a)</td>
<td>.02</td>
<td>.01</td>
<td>11.8</td>
</tr>
</tbody>
</table>

\(^a\)Predictors: (Constant), Work Enjoyment

**Table 12**

WOLF: Intrinsic Work Motivation: Correlations

<table>
<thead>
<tr>
<th>Intrinsic Work Motivation</th>
<th>Intrinsic Work Motivation Correlation</th>
<th>Years Teaching Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pearson Correlation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>( N )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.14</td>
<td>.14</td>
</tr>
<tr>
<td></td>
<td>112</td>
<td>112</td>
</tr>
<tr>
<td></td>
<td>112</td>
<td>112</td>
</tr>
</tbody>
</table>
Summary

Study results revealed that of the 112 subjects enrolled as the sample: (1) the predictive variable used was years teaching, (2) the work flow criterion variables used were work absorption, work enjoyment, and intrinsic work motivation, (3) means and standard deviations for the work flow variables were described and ranged from a mean of 3.87 (doing it for myself) to 5.87 (lots of enjoyment), indicating these traits were exhibited “regularly” or “very often,” (4) data screening indicated few outliers, (5) the Kolmogorov-Smirnov data showed a non-normal distribution, (6) inferential testing revealed years of teaching did not predict work flow in absorption, work enjoyment, and work motivation, and (7) the researcher failed to reject all three null hypotheses.
CHAPTER FIVE: CONCLUSIONS

Overview

This chapter was the culmination of research findings in view of the literature that had been presented in previous chapters of this dissertation. The researcher failed to reject all three null hypotheses. This chapter contained a discussion of the results pertaining to the existing literature explaining implications, limitations, and recommendations for future research.

Discussion

This section included consideration of each research question. The purpose of this bivariate linear research design study was to describe teaching through the setting of educators of students in GED programs to bring further understanding of a teacher’s flow experience as evidenced by work absorption, work enjoyment, and intrinsic work motivation (Bakker, 2008; Csikszentmihalyi, 1990). The focus of the study was to examine the predictive relationship of teacher experience with work absorption, work enjoyment, and intrinsic work enjoyment. There were three research questions. Each research question focused on one aspect of flow: absorption, work enjoyment, and intrinsic work motivation (Delle Fave et al., 2011). Each research question was discussed in this chapter. The questions were discussed in view of the dissertation results, literature, and theory.

Research Question One

The first research question was: “How accurately can years of teaching be used as a predictive factor to determine levels of work absorption among teachers of GED programs?” The researcher failed to reject the null hypothesis. The reasons for failure to reject were related to several factors. The primary factor was the temporal aspect of the experience of flow and the need for rest and relaxation to fully optimize the experience (Sonnentag & Fritz, 2015).
The theoretical framework of flow theory was considered next (Csikszentmihalyi, 1975). Flow theory related to research question one (Csikszentmihalyi, 1975). Research on flow theory stipulated that all teachers have flow (Csikszentmihalyi, 2012; Delle Fave & Massimini, 2003). Work absorption, therefore, related to flow theory as a component of flow (Bakker, 2008). Flow theory assumed there would have been a predictive relationship since teachers have higher levels of competence, which leads to greater levels of flow. Therefore, flow theory did not help explain the results of this dissertation.

Literature existed that related to the specific components of flow: work absorption, work enjoyment, and intrinsic work motivation. Pertaining to absorption, literature supported the findings that regardless of the years, the time element of teaching had a way of seeming like minutes when a teacher might have been teaching across the years of teaching (Bakker, 2008; Csikszentmihalyi, 1990; Delle Fave & Massimini, 2003).

**Friendships and Relationships**

Teachers serving GED programs were absorbed in the activity of teaching regardless of the skill level evidenced in years of teaching. Teaching could have been considered part of the fifth category added by Csikszentmihalyi (1975), friendship and relaxation. This category did not have a specific outcome to achieve; therefore, various years had similar levels of flow.

**Summer Vacation**

In that same vein, relaxation and recuperation had a positive correlation with work absorption (Ceja & Navarro, 2017; Halbesleben & Wheeler, 2008; Kahneman, 2011; Sonnetag & Fritz, 2015; Xu et al., 2020). A signature benefit of being a schoolteacher was the summer vacations. Embedded in the schedule for teachers in GED programs was the ability to have a few months every year to regroup, relax, and regenerate before the start of a new year (Sonnetag & Fritz, 2015). This indirect benefit for teachers in GED programs made
a significant impact on absorption during the school year. In Chapter Two of this dissertation, there was a reference to where teachers received flow in their teaching (Dell Fave & Massimini, 2003). Surprisingly, teachers received flow outside of their profession, which had a vicarious effect on levels of flow and engagement in the profession (Csikszentmihalyi, 1993, 1997; Delle Fave & Massimini, 2003; Olcar et al., 2019; Sonnetag & Fritz, 2015). Therefore, the teaching profession was rewarding both within the profession and by providing opportunities in the structural nature of the profession, and the teaching profession encouraged outside activities, such as reading, that promoted flow at varying years of teaching (Delle Fave & Massmini, 2003).

According to Hardy (2018), the ideal scenario for growth was to have periods of high stress and another period of low stress to process the situation. The teaching schedule provided that avenue and allowed teachers to go through an intense time of growth in teaching and to rejuvenate during summer vacations. Therefore, embedded in the structure of having summer vacations was a mental reassessment and rejuvenation to handle the anxiety and worry when the challenges arose (Csikszentmihalyi, 1975).

**Research Question Two**

The second research question was: “How accurately can years of teaching be used as a predictive factor to determine levels of work enjoyment among teachers of GED programs?” The researcher failed to reject the second null hypothesis. The reasons for failure to reject were related to several factors. The primary factor for rejection of the null hypothesis was the presence of high levels of flow among participants, which resulted in a limitation for more growth.

Given the literature of work enjoyment, there was a correlation between higher levels of education and levels of work enjoyment, which created an absence of a predictive relationship of work enjoyment and years of teaching (Stynen et al., 2017). Demographically,
teachers serving GED programs predominately had a master’s degree or higher level of education (see Figure 4). This academic infrastructure allowed teachers of GED programs to process the why of what they did and persist in serving the poor (Sinek, 2013). The next section provided a discussion within the literature for the high-level work enjoyment teachers serving GED programs maintained even during external difficulties.

Setting

This research was conducted during the COVID-19 pandemic, and even in these circumstances, where overall morale was low, teachers still reported a high level of flow. This indicated that beyond circumstances of years teaching, or a pandemic, there was a high level of absorption, work enjoyment, and intrinsic work motivation among teachers at varying years of teaching (Bakker, 2008). Having the setting of a pandemic highlighted a tenet of positive psychology that life was difficult, and yet, one could still maintain a positive outlook (Brooks, 2015; Seligman, 2006). Flow theory was aware of difficult circumstances and was developed when observing individuals in the aftermath of World War II (Csikszentmihalyi, 2014; Nuszpl, 2018; Pink, 2009). Adding this understanding brought a greater depth of understanding the usefulness and beauty of flow theory during a pandemic.

High Levels of Flow

High Ceiling and Gravitational Pull towards the Mean. Ericsson and Pool (2016) used an example of gravitation towards the mean in respect to doctors. As a collective profession, doctors were known to diligently pursue professional training and grow in their skill sets. However, doctors could not replicate the intense amount of study that was present in their formal study period touching on a wide variety of medicine. Rather, doctors tended to regress slightly in their skill sets and gravitate towards a lower mean as they increased in their years working within the profession (Ericsson & Pool, 2016). This was not to say that doctors were unqualified in their profession. Rather, the intensity in which doctors had to
study during medical school was not a sustainable model but a training period. In that vein of thought, teachers had gone through an intense period of adjusting to classroom dynamics that fostered grit from the onset, which was an adjustment period into training rather than a sustainable level.

The research showed collective means that teachers from the onset of their time teaching began with a higher level of satisfaction, indicating that a higher presence of flow stayed constant rather than increase. These teachers began with a high state of flow in their first year of teaching, and that presence of flow had been present and reoccurring (Csikszentmihalyi, 1990; Delle Fave et al., 2011). Therefore, as years of teaching accumulated, there was a gravitation towards the mean in skill level, and, therefore, a somewhat consistently-high level of flow (Ericsson & Pool, 2016).

**Maximum Capacity for Growth.** Foer (2011) described the work of Fitts (1992) in reaching a maximum capacity of growth. There were three phases to explain an individual’s response to a situation: cognitive stage, associative stage, and autonomous stage (Fitts, 1992; Foer, 2011). The first phase was intellectual and learning, the second stage was becoming more efficient, and the third stage was where tasks were automatic with less thinking. According to Fitts (1992), there was a point when there was minimal avenue for growth, which may have been where teachers arrived at a certain length of years, and therefore, did not show an increase in flow.

**Research Question Three**

Finally, the third research question was “How accurately can years of teaching be used as a predictive factor to determine levels of intrinsic work motivation among teachers of GED programs?” The researcher failed to reject the third null hypothesis. The reasons for failure to reject were related to several factors. The factors for rejecting the null hypothesis were the presence of diligence from the very first year of teaching and solidarity of a
worthwhile purpose in educating those in need, which brought about flow throughout the years of serving GED programs (Hur et al., 2018).

Given the literature, intrinsic work motivation was categorized in terms of grit from within seen in the social responsibility to serve the poor (Duckworth, 2016; Dweck, 2006; Hur et al., 2016). There were many things that were asked of a teacher. Some items were more desirable than others, but collectively, they represented flow that did not have a correlation between years teaching (Csikszentmihalyi, 1990).

**Grit Intensive**

Duckworth (2016) acknowledged that those in teaching, by the sheer nature of the intensity of the profession, had grit. Her personal life of being a consultant and switching careers to be a middle school math teacher gave her a unique perspective in being able to compare the two professions. During her first year of teaching, she had less free time and more expectations as a schoolteacher than as a consultant at a prestigious firm (Duckworth, 2016). Therefore, those who had taught even one year in the classroom could have been deemed to have a level of grit that evidenced a threshold of perseverance, which Csikszentmihalyi (1990) stated was needed for higher levels of flow. The results confirmed that from the onset of the first year of teaching and throughout varying years of teaching students in GED programs, there was evidence of perseverance and flow (Csikszentmihalyi, 1975; Duckworth, 2016; Dweck, 2016; Kubey & Csikszentmihalyi, 1990).

**External Factors that Evidence Grit**

Demographically, the participants that were tested collectively taught an average of 18 years, which was higher than current teaching force trends (Ingersoll et al., 2018). More than 50% of the participants had a master’s degree, and, collectively, the participants were over 51 years old. Since higher educational attainment was an indicator of higher levels of
grit and the longevity of years teaching, this group of participants started from the onset with higher levels of grit, which evidenced flow (Csikszentmihalyi, 1993; Duckworth, 2016).

Serving Those in Need. A unique characteristic of serving GED programs was that most of the students, according to research, tended to have a lower socioeconomic status (Hebert, 2017; Kantemneni et al., 2016; Pratt et al., 2017). According to Kozol (1991, 1995), there was something rewarding in being exposed to those in need and the rawness of their grasping for something higher (Hur et al., 2016). Therefore, teachers serving this population had the privilege of being able to walk alongside those who at one time may have been deemed underprivileged, yet still strove to attain a goal that placed them on a better footing for future achievements, which brought about internal motivation (De Dreu & Beersma, 2010; Tyler & Lofstrom, 2010).

Within the spectrum of wants and needs, serving an individual to attain a GED was placed in the category closer to need than want (Tetlock & Gardner, 2015). Thus, this created an avenue of hope that brought about positive grit and pronoia (Duckworth, 2016; Grant, 2013). Sizer (1992) mentioned the heart of a teacher as one entered the profession to make an impact on the students and, thus, society. Stevens (2007) acknowledged that an unstated goal of education was social mobility. GED programs, in this research, provided direct access to serving a particular community and an ability to audience specific changes of growth among students, which also provided the feedback loop for flow (Brooks, 2011; Csikszentmihalyi, 1975; Dweck, 2006; Weisberg et al., 2009).

Emotionally-Demanding Clients. A unique characteristic of these results was that even though the population of serving students in GED programs could have been considered emotionally-demanding students, teachers serving these programs began and maintained a high level of flow (Bakker, 2008). This related to the literature discussion in Chapter Two discussing the internal shift that occurred among students who voluntarily participated in
GED programs (Dweck, 2006). These students were changing from a greater tendency for a fixed mindset to an availability for a growth mindset (Dweck, 2006). Claro et al. (2006) discovered a correlation between individuals with a growth mindset and academic achievement (Dweck, 2006). Within that study, the results showed that those in lower socioeconomic circumstances had twice the tendency of having a fixed mindset (Claro et al., 2006; Dweck, 2006). Witnessing the transformation of lives was an avenue in which Duckworth (2006) recommended for growing grit. Teachers gave to their students, which brought about pronoia, an overall good feeling towards humanity, and an openness to flow (Csikszentmihalyi, 1990; Grant, 2013). “Those who give to the poor will lack nothing” (Prov. 28:17, The Holy Bible, New International Version, 2011), and dare the researcher applied this to flow (Csikszentmihalyi, 1990).

**Overlap in Results**

According to de Freitas et al. (2019), the three components of absorption, work enjoyment, and intrinsic work motivation overlapped. Bakker (2008) stated “absorption, work enjoyment, and intrinsic work motivation correlate moderately high with each other” (p. 404). Therefore, since one research question was failed to be rejected, the results that all three research questions were failed to be rejected was plausible.

**Empirical Literature**

There was a gap in the literature on the topic of GED programs (Tyler & Lofstrom, 2010). Therefore, a general description of students in GED programs was derived from two possibilities being somewhere between high school dropouts and first-generation college students (Goss & Andren, 2014). These students at one point had decided not to pursue a high school diploma the traditional way and had yet to continue their education. However, if they continued their education beyond a high school diploma, they fell into the category of
first-generation college students (Gruen, 2018; Malkus & Sen, 2011; Tyler & Lofstrom, 2010).

Within that body of literature, there were specific demographic descriptions and separation of regions in the states of Virginia and North Carolina, which was where many of the participants of the study were teaching (Adult and Continuing Education of Central Virginia, 2019; NC Community Colleges, 2021). Finally, the history of teaching and the giving and receiving taking place in teaching within the educational community was addressed to give a more comprehensive understanding of the non-monetary benefits of teaching (Csikszentmihalyi, 1975; Dweck, 2006; Goldstein, 2014; Grant, 2013; Sizer, 1992).

Theoretical Literature

The focal point of the research was the combination of empirical literature with the theoretical framework of flow and growth mindset (Csikszentmihalyi, 1975; Dweck, 2006). Flow was a subjective state that was temporal; with a higher level of skill, there was a correlation of more frequent moments of flow (Csikszentmihalyi, 1993). Growing into flow through self-discipline was a tenet of flow theory (Csikszentmihalyi, 1993). In fact, Csikszentmihalyi (1993) wrote, historically, religion was leaned upon to assist in promoting self-control, but with the change of cultural dynamics, other cultural means needed to be explored to foster self-control. Therefore, the results that there was no significant correlation among achieving the self-control of acquiring years of teaching experience with levels of flow seemed counterintuitive. However, delving deeper into the available literature focusing on the specific topics of absorption, work enjoyment, and intrinsic work motivation added to the available literature of understanding teacher satisfaction among teachers serving GED programs to understand the presence of flow in relation to years teaching (Bakker, 2008; Csikszentmihalyi, 1990).
Implications

Seligman (2006) stated that pessimists may have had a more accurate perspective of a situation but that did not inspire them to do more. Rather, positivity provided a higher possibility to be the impetus for greater. When listening to staff developments and conversations, one may have concluded there was too accurate an assessment of a situation, which may have produced a bleak perspective. However, this research that showed when teachers of GED programs in North Carolina and Virginia were asked to make a formal statement in the form of answering a questionnaire, teachers took a stance by expressing high levels of flow in absorption, work enjoyment, and intrinsic work motivation. Research showed that despite the daily annoyances of teaching, when educators serving GED programs in Virginia and North Carolina were asked to think about their profession, especially for the eyes of an outsider, the response had a collective hopeful voice (Moneta, 2017).

The specific findings of the self-reported assessment of the three elements of flow, absorption, work enjoyment, and intrinsic work motivation, were addressed. The instrument contained 13 questions measuring these three areas of flow. Participants responded on a range of Never to Always (Bakker, 2008). Participants responded as followed: Never = 1, Almost Never = 2, Sometimes = 3, Regularly = 4, Often = 5, Very Often = 6, or Always = 7. The collective mean response for the work absorption portion of the WOLF Inventory was 4.22, which meant the norm for absorption questions within the seven Likert options was regularly with an inkling toward often. The second research question focused on work enjoyment and had the highest evidence of flow with a collective mean of 5.58, which indicated that many teachers serving GED programs answered closer to very often with a slight gravitation towards often. That showed a significantly-intentional response and achieving a higher presence of flow would have meant the average response would have had to be an always answer, which would veer from the fleeting and temporal aspect of flow.
Participants responded to questions about intrinsic work motivation with a collective mean of 4.47, which implied that participants responded in between regularly and often. For intrinsic work motivation to show an increase, the response produced would have been a very often result.

Therefore, an implication concluded from this research was to give teachers a formal voice to express what gave them flow in the teaching profession with the goal of producing higher levels of collective flow (Moneta, 2017). With the theoretical framework of flow, teachers grouped in likeminded interests could cultivate further flow and strengthen the education workforce from a position of positivity. In terms of absorption, this included scheduling these likeminded interest groups with periods of rest and relaxation to continually grow. For enjoyment, this included providing avenues of quality professional development in which teachers could see the evidence of their growth in the profession.

Finally, for intrinsic motivation, this included communicating the outcome of their service in producing educated individuals that contributed to society. Grant (2008) conducted research where a group of students was asked to fundraise via phone calls for their job. The research focused on the disposition of the students and categorized them as givers or takers. Those who were takers were able to attain more donations than givers. Initially, givers had a difficult time asking people for money. Following the initial phase of fundraising, the entire group was shown that the money raised was used for scholarships with specific examples of the life-transforming effect of the donations to the recipients. After that information was disseminated, the same group of students made more phone calls for donations. This time, the givers surpassed the takers in acquiring donations for scholarships (Grant, 2008, 2013). The reason given was that the givers were now asking for donations not just for the sake of asking for money; rather, they were asking for donations to help specific individuals who needed scholarships (Grant, 2008).
Ultimately, the bulk of the responsibility in creating collective flow was dependent on the culture created by leadership (Blackaby & Blackaby, 2011; Moneta, 2017). Sometimes effort needed to be made to dig deeper to find the results of an action to give teachers more flow in their current actions. Fortunately, there were 112 educators of GED programs that were joyously giving of their time to make the world a better place and, in the process, finding flow (Csikszentmihalyi, 1997; Culbertson et al., 2015).

**Limitations**

The Kolmogorov-Smirnov assumption of normality (p<.05) was violated, which could have led to less robust results of parametric testing. However, a non-parametric Wilcoxon Rank Signed Test was used, which showed two of the three comparisons had medium significance.

The timing of data gathering happened to be six months into government restrictions for classroom teaching due to COVID-19. Many GED programs opted to go virtual. Thus, the data gathering had to shift from being administered at in-person professional developments to virtual dissemination. This helped to reach a broader range of teachers from two different states. Since the population of the group studied expanded to two states, there was no control as to what types of feedback teachers were receiving from teaching in terms of professional development or external incentives.

Also, there could have been a slightly different result of flow due to the extenuating circumstances of COVID-19. However, even with the potential negative pressures of being exposed to illness during a pandemic, the overall results showed positive levels of flow. The largest significance in this research was the qualities of an individual who chose to go into a profession that was known for extra hours and limited earning potential. These individuals, who were highly educated, made the choice to show a level of moral aptitude and grit that could weather pandemic influences and years of teaching to evidence high levels of flow.
They were the collective representation of a branch of the educational support system that allowed individuals to have second chances and hope for social mobility (LaDousa & Baldrige, 2017; Stevens, 2007).

**Recommendations for Future Research**

The field of education produced a microcosm of growth that could have been evaluated on multiple levels. Some of the recommendations for future research to understand the field of education, teaching, and GED programs include:

1) Focus the research on GED programs located in rural versus urban environments to bring about greater attention on the monetary influences of flow, with an emphasis on Maslow’s hierarchy of needs, among teachers since teaching in urban environments require a greater financial need (Csikszentmihalyi, 1975).

2) Replicate the WOLF inventory in post-pandemic times to compare results to further understand the obstacles in the presence of flow, since the relationship between teachers and students could be different in the virtual reality that was created through COVID-19 (LaDousa & Baldrige, 2017).

3) Compare WOLF inventory results of teachers of GED programs to teachers in mainstream classrooms to see if the population of students taught influences levels of flow among teachers.

4) Develop a greater understanding of flow dispositions among teachers of GED programs by administering a self-efficacy questionnaire to assess if there is a correlation between self-perceived efficacy levels of years of teaching (Bandura, 2006; Csikszentmihalyi & Csikszentmihalyi, 1988; George et al., 2018).
5) Conduct flow research of teachers on a biological level by addressing cortisol levels while teaching (Delle Fave et al., 2011), then cross-examine the self-evaluated questionnaire and the biological components of flow among teachers in relation to years teaching.

6) Analyze the relationship between flow and teacher attrition with an emphasis on teacher retention. Given the findings that teachers start at a high level of flow and remain at a high level of flow, attempt to resolve the empirical data of teacher attrition (Delle Fave & Massimini, 2003).

7) Conduct a qualitative study of flow among teachers serving GED programs in Virginia and North Carolina to bring about clarity about what aspects of teaching in the GED program brings about flow. This could help differentiate the rewards received within administrative and teaching duties among educators, while gaining a nuanced understanding of the intrinsic portion of intrinsic work motivation.

8) Focus evidence of flow among administrators and how they actively pursue collective flow among their teachers (Moneta, 2017).

9) Finally, research the role of challenge as employees transition through growth from optimal experience (Ceja & Navarro, 2017).
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https://doi.org/10.1177/1521025116629152


Appendix A

Participant Demographics

Gender: ___ Male ___ Female

Age: ___ 20-30 ___ 31-40 ___ 41-50 ___ 51+

Years Teaching: _____________________

Level of Education (please circle): high school diploma, GED, bachelor’s degree, teaching credential, master’s degree, doctoral degree

Current position: ___ GED teacher _____ ESOL teacher ____ Teacher’s aid ____ Other

What types of feedback do you receive in teaching?

From administrators?

From students?

Thank you for participating in this study. Feel free to add any information below that you feel would be pertinent to the study.
Appendix B

Instructions to Participants

January 27, 2021

XXX
Teachers of Adult and Continuing Education of XXX
XXX, Virginia

Adult and Continuing Education of XXX
XXX, Virginia
XXX, Director

Dear Teachers,

As a doctoral student in the School of Education at Liberty University, I am conducting research as part of the requirements for a degree. The purpose of my research is to quantifiably gauge teacher satisfaction to assist in supporting teachers, and I am writing to invite eligible participants to join my study.

Participants must be 18 years of age or older and a teacher of students enrolled in the General Education Development (GED) program. Participants, if willing, will be asked to fill out a Work-Related Flow (WOLF) inventory and a general demographics questionnaire. It should take approximately five minutes to complete procedures listed. Participation will be completely anonymous, and no personal, identifying information will be collected. To participate, please complete the attached survey and return it by placing it in the provided envelope.

A consent document will be given to you in conjunction with the survey. The consent document contains additional information about my research. You do not need to sign and return the consent document.

Sincerely,

Jin K. Chang
ESOL Teacher
Doctoral Candidate at Liberty University
Appendix C

Instrument Consent

Erasmus University Rotterdam
Department of Work & Organizational Psychology
T12-47
P.O. Box 1738, 3000
DR Rotterdam, The Netherlands

Dear Arnold B. Bakker,

My name is Jin Chang, and I am a doctoral candidate in Higher Education Administration at Liberty University in Virginia, USA. I would like to use your work-related flow inventory found in the article you wrote, “The work-related flow inventory: Construction and initial validation of the WOLF” (Bakker, 2008), for my dissertation instrument. Next semester, I hope to defend my proposal and then apply for Institutional Review Board (IRB) approval. This letter is an inquiry for permission, so I can include your instrument in my submission to IRB.

I plan on administering the work-related flow inventory to three regions in Virginia consisting of General Education Development (GED) teachers. In America, students who have not completed high school can opt to take a test, the GED, which stands as an equivalent to a high school diploma. This is a government funded program and in the state of Virginia, there are 22 regions that service students who want to study for a GED.

Before we continue, I wanted to give you a small description of myself. I am a Korean American who was raised in California and spent 11 years with my husband and children in an outskirt city of China, working for a nonprofit organization. We moved to Virginia three years ago, so my husband could be a professor at Liberty University. We have three children that we raised all over the world, and I am pursuing my dreams of attaining a terminal degree. Through my experiences, I have come to value the role circumstances take on forming personalities.

My interest in administering the work-related flow inventory in the context of GED teachers is to bring forth research in an under-researched environment, GED programs, with a well-researched concept, flow. I am fortunate in that I have worked as an English as a Second or Other Language (ESOL) teacher among adults for the past three years. In Virginia, there is an overlap between ESOL teachers and GED teachers, and I have been able to observe a wonderful program that brings a second chance to individuals who have experienced an academic disappointment in being unable to attain a high school diploma.

Would it be okay for me to use your research? If so, a simple,

You have permission to use the work-related flow inventory found in Bakker, A. B. (2008). The work-related flow inventory: Construction and initial validation of the WOLF. Journal of Vocational Behavior, 72, 400-414. doi:10.1016/j.jvb.2007.11.007

that you could copy and paste in a reply email would be wonderful.
Thank you for your research. I have read your article numerous times and look forward to finding out levels of absorption, enjoyment, and intrinsic motivation among GED teachers.

Best,

Jin Chang
Doctoral Candidate
Liberty University

Arnold Bakker’s response:

You have my permission, Good luck!

Vriendelijke groet, Kind regards,
Arnold

Prof. Dr. Arnold B. Bakker
Erasmus University Rotterdam

Op 15 jun. 2020 om 18:42 heeft Chang, Jin Kim <jkchang@liberty.edu> het volgende geschreven:

Erasmus University Rotterdam
Department of Work & Organizational Psychology
T12-4?
P.O. Box 1738, 3000
DR Rotterdam, The Netherlands

Dear Arnold B. Bakker,
Appendix D

Letter to Gatekeepers

Attn: _______________, Program Manager

________________________

Dear _______________

My name is Jin Chang, and I am a doctoral candidate in Higher Education Administration at Liberty University and would like to administer a Work-Related Flow (WOLF) inventory with your GED teachers for my dissertation (Bakker, 2008). For the past three years, I have been simultaneously teaching ESOL in Region 11, which consists of the counties of Amherst, Appomattox, Bedford, Campbell, and the city of Lynchburg, while pursuing my doctorate. During that time, I have grown to understand the program and feel a sense of camaraderie amongst the teachers and students. My area of focus is on positive psychology and teacher satisfaction. More specifically, I would like to see if there is a correlation between numbers of years teaching among GED teachers and evidence of flow shown in signs of absorption, work enjoyment, and intrinsic motivation. Attached are the questionnaires that I would like to give to the teachers.

Currently, I have written the first three chapters of my dissertation for previous classes and am now going through the process of refining the content. In the fall, I plan on defending my proposal and, shortly after, administering the questionnaire. This letter is a general inquiry of your interest in allowing me to administer this test at a future staff development. It will only require a few minutes and afterwards, I will share with you an analysis of the data. This could be helpful to you in understanding what specific areas the teachers you supervise enjoy in their teaching profession.

Part of the dissertation process is receiving approval from the Institutional Review Board (IRB) so that the contents of what I have to ask and the manner in which I ask is ethical. In other words, I have to submit a detailed explanation of what I want to do and a description of the participants to get approval. However, if I get approval without initiating a relationship with future participants (which would hopefully be you) this could make the implementation of administering my instrument difficult. I have yet to formally get IRB approval but was informed that receiving a soft “yes” as to your willingness before I submitted documents for IRB approval would be ideal. What are your thoughts? If you are interested, a simple response such as, “looking forward to the work-related flow inventory” would be appreciated.

Feel free to contact me at _______________ or write me at _______________ or _______________ with any questions. Thank you for your time, and I hope to continue a relationship with you and Region _____.

Best,

Jin Chang
ESOL Teacher
Central Virginia Adult and Continuing Education
Appendix E

IRB Approval

Initial
IRB-FY20-21-435 - The predictive relationship between teaching experience and work absorption, work enjoyment, and intrinsic work motivation

PDF

PI: Jin Chang
Current Analyst: Connor Bryant
Decision: Exempt - Limited IRB
Policy: Post-2018 Rule
Review Type: Exempt
Review Board: Research Ethics Office
Approvals Task History Letters Attachments

Approvals

Research Team

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<tr>
<th>Name</th>
<th>Role</th>
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<th>Date</th>
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<td>Principal Investigator</td>
<td>Certified</td>
<td>01-27-2021 3:29 PM</td>
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<td>D Mattson</td>
<td>Co-Principal Investigator</td>
<td>Certified</td>
<td>01-27-2021 4:21 PM</td>
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Appendix F

Participant Consent Form

CONSENT FORM
The Predictive Relationship between Teaching Experience and Teacher Qualities of Work Satisfaction and Work Motivation Among Teachers of General Education Development Programs
Jin Kim Chang
Liberty University
School of Education

You are invited to be in research on teacher work satisfaction and work motivation. You were selected as a possible participant because you are a part of the General Education Development Program. Please read this form and ask any questions you may have before agreeing to be in the study.

Jin Kim Chang, a doctoral candidate in the School of Education at Liberty University, is conducting this study.

Background Information: The purpose of this study is to study if there is a predictive relationship between flow variables shown in absorption at work, work enjoyment, and intrinsic work motivation and years of teaching among teachers of GED programs.

Procedures: If you agree to be in this study, I will ask you to do the following things:
1. Fill out participant demographics, which should take approximately five minutes.
2. Fill out a Work-Related Flow (WOLF) Inventory, which should take approximately five minutes.
3. Allow the researcher, Jin Kim Chang, to take pictures of the process of filling out the participant demographics and WOLF Inventory.

Risks: The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

Benefits: The direct benefits participants should expect to receive from taking part in this study are a sense of benefitting the society by giving valuable feedback on work satisfaction and work motivation among teachers.

Compensation: Participants will not be compensated for participating in this study.

Confidentiality: The records of this study will be kept private. Research records will be stored securely, and only the researcher will have access to the records. I may share the data I collect from you for use in future research studies or with other researchers; if I share the data that I collect about you, I will remove any information that could identify you, if applicable, before I share the data.

• The participant demographics and WOLF inventory will be collected without names to provide anonymity to participants.
• Data will be stored on a personal computer and then transferred to a zip drive. After five years, the information gathered will be deleted.
• The researcher, Jin Kim Chang, will have sole access to the data.
• I will keep the contents of what was acquired within the realm of the dissertation. I cannot assure participants that other members of the focus group will not share what was discussed with persons outside of the group.

The researcher serves as an ESOL teacher at Adult and Continuing Education of Central Virginia. To limit potential conflicts all documents will be collected without names. This disclosure is made so that you can decide if this relationship will affect your willingness to participate in this study. No action will be taken against an individual based on his or her decision to participate in this study.

The researcher has no financial interest in the outcome of this study.

Voluntary Nature of the Study: Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University or Adult and Career Education of Central Virginia. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

How to Withdraw from the Study: If you choose to withdraw from the study, please inform the researcher that you wish to discontinue your participation prior to submitting your study materials. Your responses will not be recorded or included in the study.

Contacts and Questions: The researcher conducting this study is Jin Kim Chang. You may ask any questions you have now. If you have questions later, you are encouraged to contact her at jkc@liberty.edu. You may also contact the researcher’s faculty chair, Dr. D.J. Mattson at djmattson@liberty.edu.

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, you are encouraged to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA 24515 or email at irb@liberty.edu.

Please notify the researcher if you would like a copy of this information for your records.