

GENERAL SELF-EFFICACY AND TEACHER SENSE OF EFFICACY OF GENERATION Z
TEACHER CANDIDATES: AN EXPLANATORY SEQUENTIAL MIXED METHODS
INQUIRY

A Dissertation

by

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This dissertation meets the standards for scope and quality of
Texas A&M University-Corpus Christi and is hereby approved.

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ABSTRACT

Generation Z individuals born between 1995-2012 currently represent 25% of the population and will soon exceed the Millennials as the largest generation (Dill, 2015). Thus, lack of practical knowledge and understanding may lead to employee turnover (Flippen, 2017). This study addresses how teacher education programs, cooperating teachers, principals, superintendents, university faculty, and hiring committees might have a limited understanding of Generation Z Teacher Candidates. With this limited understanding, issues arise. This study utilized the theoretical underpinnings of Strauss and Howe's Generational Theory (1991) and Albert Bandura's Self-Efficacy Theory (1977) in order to determine the general self-efficacy and teacher sense of efficacy of Generation Z Teacher Candidates.

Teacher candidates, both field-based students and clinical teachers, were recruited for the study. The sample size consisted of 42 field-based students and 17 clinical teachers for the quantitative research phase of the study. All participants were enrolled in the teacher education program during the fall semester of 2018 at a regional four-year university in South Texas. Participants completed two surveys via their mobile devices: General Self-Efficacy Scale by Schwarzer & Jerusalem (1995) and Teacher Sense of Efficacy Scale by Tschannen-Moran & Woolfolk-Hoy (2001). The data was exported into the Statistical Package for the Social Sciences (SPSS) and was analyzed using descriptive statistics. For the qualitative phase, two focus group interviews were conducted. Each focus group was comprised of eight field-based students and clinical teachers. The interviews were completed during the fall semester 2018 at the same regional four-year university in South Texas in which these students were enrolled. Upon completion, the qualitative data was analyzed and synthesized.

The findings from the quantitative data suggest Generation Z Teacher Candidates have a moderately high self-efficacy. Field-based students had an overall mean of 3.15 out of 4.00, while clinical teachers had an overall mean of 3.08 out of 4.00. Combined, the mean was 3.12, representing a moderately high self-efficacy. The findings from the qualitative data revealed three major themes related to their general self-efficacy and teacher sense of efficacy: the caring characteristics associated with Generation Z, their instructional beliefs, and their perspectives on diversity. Each theme unveiled subthemes and are examined in detail.

The findings from this study could be used to help facilitate professional development opportunities and prepare teacher education programs, cooperating teachers, principals, superintendents, university faculty, and hiring committees to be prepared for this new generation of teachers. It offers insight into the characteristics, beliefs, attitudes, and perceptions of Generation Z. Finally, the conclusions might help education programs target areas of improvement and provide cooperating teachers with an understanding of the perceptions and characteristics of teacher candidates that may be assigned to them as field-based students or clinical teachers.

DEDICATION

I dedicate this manuscript to my family. Without their unwavering support, there is no way I would have been able to accomplish this. To my son, Matthew, I love you more than life itself. For four years, you have seen me at my highest and at my lowest. I just hope you know that with hard work and determination, you can do anything you set your mind to. To my youngest son, Michael, your vibrant personality and free-spirit have made my troubled days so much better. Both of you are my driving force and now that this chapter is almost complete and a new one is about to begin, I look forward to watching both of you grow into fine young men. You make me proud to be your mother. I am truly blessed! Thank you for loving me and allowing me to chase my dream. I love both of you so much!

To my husband, Chris, you have been extremely unselfish for the past four years. I told you my wants, and you encouraged me to chase after them, and for that, I am extremely grateful. I am glad to have been on this journey with you; there is no one I would rather have gone through it with. Thank you for always believing in me and seeing more in me than I saw in myself. I love you!

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“Education is the most powerful weapon which you can use to change the world.”

- Nelson Mandela

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CHAPTER I: INTRODUCTION

A new generation, Generation Z, or Gen Z, is starting to enter the teaching profession. Generation Z is defined as individuals born in or after 1995 (Stillman & Stillman, 2017). This generation is the first true generation of teachers of the millennium that will have an influence on a school's philosophy, because they bring with them unique principles, opinions, and tenets affecting the way things are done (Breibur, 2017). As this new cohort enters the field of education, teacher educator programs, cooperating teachers, principals, superintendents, university faculty, and hiring committees are faced with the daunting task of understanding Gen Z members, namely their characteristics, attitudes, and perceptions. Findings from a recent Gallup survey found that just six percent of the 1,733 public school superintendents surveyed understand the needs of this generation in the workplace (Hodges, 2016). When put into perspective, there are approximately 1,629 public school superintendents who do not understand the needs of Generation Z in the workplace. The need to comprehend Generation Z mimics the concern of several employers. For example, Ryan Scott (2016), founder and CEO of Causecast, states that Generation Z is a critical part of the future. The more employers can prepare for their arrival in the workforce, the better employers and companies can prepare to help them to be successful.

Additionally, Generation Z is the most diverse of generations, with 48% currently being non-White (Mohr & Mohr, 2017). Known as the digital natives who were born between 1995-2012 with a current population of 72.8 million, this group is expected to have a significant impact on the future (Stillman & Stillman, 2017).

Generation Z literature has established an effort to understand that this generation is the first to have spent their entire lives connected to technology and social media 24 hours per day

(Tysiac, 2017). Much of the research on Generation Z has focused on this group prevailing as digital native students and how they will impact the workplace. Additionally, much research exists related to the comparison of Generation Y, the previous generation, also known as the Millennial generation, and Generation Z; however, there is little literature available on the existence of Generation Z Teacher Candidates, both field-based teachers and clinical teachers. Field-based students are those who are placed in schools twice per week the semester before they enter student teaching, while clinical teachers are students who are placed in a classroom five days per week and are currently in their last semester before graduation.

This study sought to describe the general self-efficacy and teachers' sense of efficacy of current Generation Z Teacher Candidates. The knowledge gained from the study will allow future teacher education programs, cooperating teachers, principals, superintendents, university faculty, and hiring committees an opportunity to evaluate or re-evaluate current practices in order to accommodate and promote the needs of future educators.

Statement of the Problem

The problem addressed within the study is how teacher education programs, cooperating teachers, principals, superintendents, university faculty, and hiring committees might have a limited understanding of Generation Z. With this limited understanding, issues arise. Lack of practical knowledge and understanding of Generation Z might lead to an increase in employee turnover (Flippen, 2017). Currently, Generation Z makes up 25% of the population and will soon exceed the Millennials as the largest cohort (Dill, 2015). Additionally, Generation Z is expected to alter the labor force for many years to come (Flippen, 2017). What is important to recognize is that every generation has distinct characteristics and attitudes and Generation Z is no exception (Twenge, 2016).

Teacher education programs, cooperating teachers, principals, superintendents, university faculty, and hiring committees need to be aware of Generation Z Teacher Candidates' self-efficacy in order to assist them in becoming successful educators. By doing so, university faculty, school administrators, and hiring personnel may also be successful in the recruitment, professional development, and retention of Generation Z teachers.

Theoretical Framework

To properly frame this study, it was appropriate to recognize two particular theories that have helped shape the study of generations, as well as the research related to self-efficacy: Strauss and Howe's Generational Theory and Bandura's Self-Efficacy Theory.

Generational Theory

The Generational Theory is a concept based on the works of William Strauss (1947-2007), an American lecturer and playwright, and Neil Howe (b. 1951), a consultant and historian. Together, they collaborated on several publications and created the Generational Theory. The Strauss-Howe Generational Theory illustrates a repeated progression of age cohorts called generations. These generations encompass specific behavioral patterns that are interconnected with the history of America (Howe & Strauss, 1991).

Strauss and Howe are credited with popularizing the theory beginning in the 1990s, but original roots of generational theory can be traced back to Karl Mannheim and his 1952 essay titled "The Problem of Generations" (Wilson & Gerber, 2008). Mannheim (1952) argued that generations are influenced by the impact of history and societal events and people change because of their responses to their social surroundings. Overall, people resemble their epochs more than they would mirror their parents. Furthermore, Strauss and Howe recognize historian Arthur Schlesinger, Jr. as inventing the generational cycle approach. Schlesinger (1986)

published 14 essays in which he examined patterns of political shift from right to center or center left throughout American History that follow a generational configuration. Howe and Strauss (2000) also acknowledged the generational theories developed by Spanish philosophers, Jose Ortega Y Gasset and Julian Marias. Marias, a pupil of Ortega Y Gasset and their work, wrote “Generations: A Historical Method” (1970). This writing explores the meaning of history and culture from the viewpoint of their theory of generations. In particular, Marias (1970) aims to bring awareness to the respective obligations and responsibilities of human generations.

What makes Strauss and Howe’s generational theory more prominent than the others mentioned above is the notion that Strauss and Howe (Howe & Strauss, 1997) prominently focused on millennial overtones. The majority of their research has concentrated on the history of the United States, although they have studied generational cycles in other countries. Their ground-breaking work is titled *Generations* (1991), which posits the history of the United States as a progression of generational accounts beginning in 1584 and representing today’s generation. The major assumption depicted in *Generations* is that each generation belongs to one of four categories and that these categories replicate chronologically in fixed patterns. Each generation type depicts a well-defined identity and disposition.

Strauss and Howe published their second major work *13th Gen: Abort, Retry, Ignore, and Fail?* in 1993. The premise of the book centers on the 13th generation of the United States, the Gen-Xers born between 1961 and 1981. The authors contended that economic and political conditions influenced this cohort to become a clear-thinking and take-charge squad of superiors (Howe & Strauss, 1993).

In 1997, Strauss and Howe published a more comprehensive and extensive work than had appeared in *Generations*. The book, *The Fourth Turning: An American Prophecy*, focuses on the

four generational turnings: the high, the awakening, the unraveling, and the crisis. The complete four turning cycle typically lasts 80-90 years, and each turning describes a speculated relationship of social behaviors and attitudes toward culture and values, civic engagement, family, and risk. The first turning, known as the high, takes place after the crisis period. During this time, institutions and social communalism are strong, while individuality is fragile. The second turning, the awakening, is epitomized by culminating personal and spiritual independence of society; people feel a sense of self-awareness, both divine and personal. Public establishments may be attacked, hindering civic development. The unraveling, the third turning, occurs during a time when institutions are weak and mistrusted. Individuality, however, is stout and prosperous. The last turning, the crisis, is a period of destruction in which institutional life is shattered. As this cycle runs its course, people will be revived and will acknowledge the advantages of being a unified society, resulting in the transformation of establishments (Howe & Strauss, 1997). Figure 1 depicts the generational turnings.

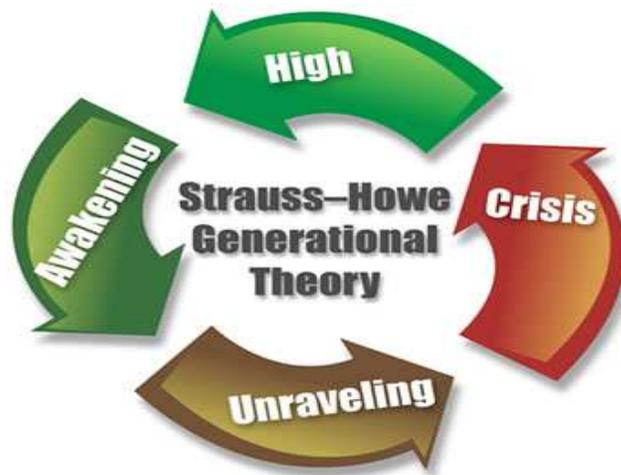


Figure 1. The four generational turnings cycle. Taken from: Mauldin, J. (2016). *Generational chaos ahead*. Retrieved from

<http://www.mauldineconomics.com/frontlinethoughts/generational-chaos-ahead>

It is assumed that each generation, a group born every twenty years, will experience the complete four turnings during their lifetime. However, a new turning is marked by an event that disrupts society. For example, the current generation, Generation Z, is assumed to be in the cycle of the fourth turning, the crisis. The events that could have commenced the fourth turning are the 9/11 attack in 2001, the Great Recession in 2008 or the War on Terror. Therefore, it is assumed that institutions are in the process of rebuilding, and society is working collectively. It should be noted, however, that the cycle does not attempt to explain why such events occur. Rather, what it attempts to explain is how society might react to incidents. According to the theory, it is the response that defines the era (Howe & Strauss, 1993, 1997, 2000).

In 2000, Strauss and Howe published *Millennials Rising*. This particular work examines the Millennial Generation, those born after 1982. Howe and Strauss spent years collecting data, conducting polls, and speaking to hundreds of children, parents, and teachers in order provide a thorough study of the Millennial Generation. The authors present the millennials as being the next great generation with seven distinct traits: assertive, team-oriented, shielded, extraordinary, accomplishing, pressured, and predictable (Howe & Strauss, 2000).

As with any theoretical practice, criticism exists. Many assumptions Howe and Strauss present in their works are based on generalizations, making it difficult for opposition and diversity within cohorts. Norman Ryder (1965), founder of the Cohort Theory, was critical of those who generalized generations, arguing that social changes do not validate a theory. Ryder suggests that there are specific boundaries that define a cohort (Orion, 2015). Additionally, there are critics who argue that Strauss-Howe's focus is too specific, relying solely on American history (Hoover, 2009). Opponents also argue that there is an absence of empirical data and that

many descriptions of certain generations are predictable, thus lacking relevant data (Giancola, 2006).

Self-Efficacy Theory

Albert Bandura's theoretical construct of self-efficacy derives from his Social Cognitive Theory (SCT). Self-efficacy is an individual's belief in his or her capability to perform specific performance achievements (Bandura, 1977, 1986, 1997). Self-efficacy mirrors self-reliance in the ability to exercise control over one's conduct, motivation, and social environment. Bandura theorized these beliefs as factors of how people think, behave, and feel. Self-efficacy plays a role in how life's challenges are tackled. Self-Efficacy Theory has become one of the most studied topics among psychologists and educators and has had an extensive impact on research, education, and experimental practice (Cherry, 2017).

Bandura (1977) distinguishes between outcome expectancy and efficacy expectations. An outcome expectancy is "a person's estimate that a given behavior will lead to certain outcomes," while an efficacy expectation is "the conviction that one can successfully execute the behavior required to produce the outcomes" (p. 193). The two expectations are segregated because people can believe that a certain progression of accomplishment will lead to specific outcomes; however, if they contemplate uncertainties as to whether they can perform the task, then such information does not impact their performance (Bandura, 1977, 1986, 1997). Individuals may lack the motivation to perform the action, or they may doubt the ability to accomplish the task. A person with a high self-efficacy believes that his or her actions and thoughts will have an impact on the outcome (Bandura, 1977, 1986, 1997).

Bandura (1977) posits that efficacy is based on four major sources of information. The first source is performance accomplishments. Successful accomplishments will increase feelings

of self-efficacy, whereas failures will weaken feelings of self-efficacy. The second source is vicarious experience through the observance of social models. Observing success or failure of the observer and the model is a crucial influence as to the strength of one's self-efficacy. Witnessing individuals similar to oneself flourish by continuous determination elevates individuals' beliefs that they, too, can acquire the abilities that can lead to success. However, observing failure of similar individuals despite high effort can lower the observers' self-efficacy. Bandura asserts that there is a strong correlational influence between the observer's and the model's self-efficacy when both the observer and the model are comparable. Conversely, if people view the models as being different from themselves, then their self-efficacy is not swayed. The third source of one's perception of self-efficacy is verbal persuasion. When people are verbally persuaded that they have the ability to master certain actions, they are likely to put forth greater determination which will result in success. The fourth and final source is emotional arousal. Poor accomplishments are expected if people are under stress and tension; they can impact the perception of one's ability to think they can or cannot accomplish tasks. Bandura theorizes that what is important here is not the reaction, but rather how individuals can recognize and decipher the emotional arousal (Bandura, 1977, 1986, 1997). Figure 2 summarizes the four sources of efficacy.

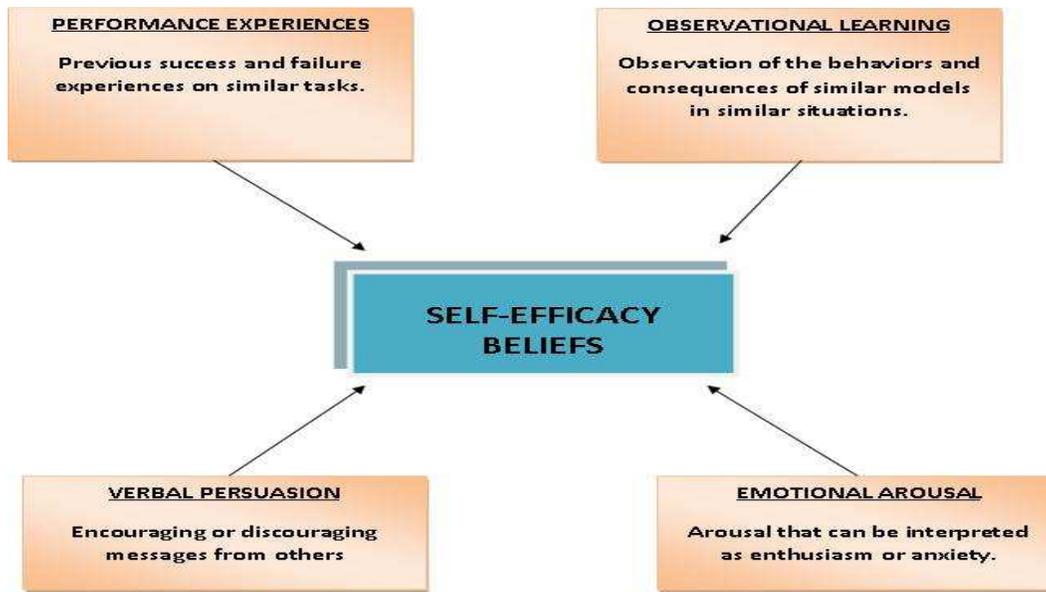


Figure 2. How self-efficacy beliefs are created. Retrieved from <https://wikispaces.psu.edu/display/PSYCH484/7.+Self-Efficacy+and+Social+Cognitive+Theories>

The self-efficacy component of Bandura’s social cognitive theory is assumed by many researchers to be a significant contribution to the study of academic attainment, knowledge, and motivation (Pajares, 1996). Additionally, experimental studies have successfully been conducted on snake phobics, individuals with an abnormal fear of snakes. The findings revealed that raising levels of self-efficacy have proven to be an effective technique that has helped snake phobics handle hostile conditions (Bandura & Adams, 1977). Additional studies were later conducted on arithmetic skills (Bandura & Schunk, 1981), depression (Zeiss, Lewinsohn, & Munoz, 1979), and pain tolerance (Dolce & Smith, 1986).

Despite the overwhelming research in support of self-efficacy theory, there has been published literature that attempts to discredit Bandura’s philosophy. Anthony Biglan (1987) authored a critique of Bandura’s self-efficacy theory by claiming that the theory fails to emphasize the role that the environment plays when constructing self-efficacy. Environmental

factors could account for behaviors that can manipulate an individual's self-efficacy. Furthermore, Russell Hawkins (1992) argued that Bandura's self-efficacy is not a true cause of behavior. Rather, it is simply a useful, predictor variable. Hawkins (1992), however, acknowledges self-efficacy as being an important and intuitively appealing construct.

Strauss and Howe's Generational Theory provides insight into the possible behaviors of generations at each turning. Thus, each turning represents a different tone and mood that begins its cycle by an event that has occurred in society. Understanding the theory helps gain an accurate perspective of the current generation, Generation Z. Furthermore, Albert Bandura's Self-Efficacy Theory is crucial in determining how people will react and respond to certain actions and whether the actions will increase or decrease their self-efficacy. Generational Theory acknowledges predictable behavior that exists with certain generations, while Self-Efficacy Theory recognizes behaviors that might increase or decrease self-efficacy. Linking these two theories together for this study will offer insight into the attitudes of the new cohort of prospective teachers entering the education field, Generation Z Teacher Candidates.

Purpose of the Study

The primary purposes of this study are to determine and describe the general self-efficacy and teachers' sense of efficacy associated with Generation Z Teacher Candidates and how they view their role in education as a first-time teacher. The findings from the research may be used to assist teacher education programs, cooperating teachers, principals, superintendents, university faculty, and hiring committees in understanding Generation Z Teacher Candidates' attitudes and self-efficacy. The study was guided by the following research questions:

1. What is the General Self-Efficacy (GSE) of Generation Z Teacher Candidates?
2. What is the Teachers' Sense of Efficacy (TSE) of Generation Z Teacher Candidates?

3. Based on their general self-efficacy and teacher sense of efficacy, how do Generation Z Teacher Candidates view their role as first-time educators, with regard to students, colleagues, and the teaching profession?
4. What are the perspectives of Generation Z Teacher Candidates on the importance of self-efficacy as relative to their ability to adjust from student to teacher?

Rationale

Having had the opportunity to take part in several hiring committees for teachers, it has become evident that there is a need to understand Generation Z. I have frequently heard negative comments regarding new teachers entering the education field. I sincerely believe, however, that it is a failure on our part to not take the time to understand the efficacy that exists among different generations. Furthermore, I believe we (veteran teachers) tend to think that new teachers are supposed to teach the way in which we (veteran teachers) were taught when we were in school. That is simply not the reality. It is important to conduct this research in an effort to provide a baseline for what may be the most dynamic generation of our time.

Additionally, I have always been drawn to the concept of self-efficacy. As a doctoral candidate who lost my father when I was six and was raised by a mother who never wanted children, I possessed little self-efficacy, such as believing in my ability to overcome obstacles and achieve success regardless of past circumstances. I find it intriguing to understand how people maneuver through difficult circumstances while refusing to allow those circumstances to define who they are and what they stand for. Their self-efficacy, whether it be high or low, plays a role on how one's life could be shaped because of their self-efficacy. My journey has not been an easy one, but somewhere along the way, I found my self-efficacy and believed I could face the obstacles placed before me. If I had to pinpoint the exact time when my life turned around, I

would refer back to when I first entered college. I had an English professor, who now serves on our local city council, who was passionate and truly cared about my well-being both as an individual and a student. She saw how I was struggling with life and reached out in the most caring way. I often wondered why I did not receive the same compassion from my grade school teachers. I have come to realize that self-efficacy is a powerful trait to possess. It is for these reasons that I am pursuing this study.

Definition of Terms

For the purpose of the study, the following definitions were adopted to elucidate meaning and understanding:

Baby Boomers – The generation that precedes Generation X; individuals born between 1946 and 1964 (Stillman & Stillman, 2017).

Clinical Teachers – Students in their last semester before graduation who are enrolled in a teacher education program and are working toward a teaching certification. They are placed in K-12 schools five days per week.

Cohort – A generational group who share historical or social life experiences (Howe & Strauss, 1991).

Generational Turnings – A continuous generational cycle that consist of four turnings, or cycles, lasting approximately twenty years per turning. There are four generation turnings: the high, the awakening, the unraveling, and the crisis (Howe & Strauss, 1997).

Generation X – The generation after the Baby Boomers; individuals born between 1965 and 1979 (Stillman & Stillman, 2017).

Generation Y – Also known as the Millennials; individuals born between 1980 and 1994 (Stillman & Stillman, 2017).

Generation Z – The generation after the millennial generation; individuals born between 1995 and 2012 (Stillman & Stillman, 2017).

Field-based students – Student who are enrolled in a teacher preparation program and working toward teacher certification. They complete field-based teaching experiences with the assistance and guidance of university faculty and K-12 cooperating teachers, usually during their second to last semester of their program. They are in a school setting three days per week (Ward & Wells, 2003).

Self-Efficacy – “People’s beliefs about their capabilities to generate assigned levels of performance that exert influence over events that affect their lives” (Bandura, 1994, p. 71).

Social Cognitive Theory – The view that people learn by observing others, thus explaining the personality of how one thinks and responds to one’s social environment (Bandura, 1986).

Teacher Candidates – A term generally referred to as students who are currently enrolled in a university education program and may be also identified a preservice teacher or student teacher.

Significance of the Study

The significance of the study, which supports the literature, emphasized the need to bring attention to teacher education programs, cooperating teachers, principals, superintendents, university faculty, and hiring committees the current descriptions of the general self-efficacy and teacher sense of efficacy of Generation Z Teacher Candidates. First, the study may provide some referenced evidence on the need to have an understanding of the attitudes, characteristics, and perceptions of future Generation Z educators. Second, the study may assist teacher education programs, cooperating teachers, principals, superintendents, university faculty, and hiring

committees as to the needs and wants of Generation Z teachers, offering insights to the implementation of possible professional development topics. Third, the study may offer opportunities for program refinement at the university level.

There is a lack of research regarding Generation Z Teacher Candidates. This study provides an understanding for addressing this new generation of teachers. Results from this study could prove helpful for teacher education programs, cooperating teachers, principals, superintendents, university faculty, and hiring committees

The remainder of the study is organized into five chapters, a reference section, and appendices in the following manner. Chapter Two presents a review of the related literature dealing with evolving trends associated with Generation Z and self-efficacy. Chapter Three describes the research design and methodology of the study. The instruments used to gather the data, the procedures that followed, and determination of the sample selected for the study are explained. An analysis of the data and a discussion of the findings are presented in Chapter Four. Chapter Five concludes the study with a summary, conclusions, implications, and recommendations for future studies. Attached to the study are a bibliography and appendices.

CHAPTER II: REVIEW OF THE LITERATURE

From this review of research, the selection criteria were analyzed, synthesized, reduced, and organized into the following thematic framework: The Previous Generation: Millennials; Generation Z: Caring and Cultural Diversity; Participatory Learning Theory or Situated Learning Theory; Social Cognitive Theory; Self-Efficacy; and Self-Efficacy of Teacher Candidates. Through a search of the literature the researcher discovered connections with certain theories and themes, which have been placed as headings and subheadings.

The Previous Generation: Millennials

In order to understand Generation Z, the researcher found it necessary to provide insights into the previous generation of teachers: the millennials. The millennials were born between 1982-2002 (Howe & Strauss, 2000). This generation included the invention of toys and tools of the digital age, such as personal computers, video games, digital cellular phones, and CD-ROMs (Howe & Strauss, 2000). There are several characteristics that millennials possess.

First, they are social networkers. Online social networks, including Yahoo 360, Myspace, and Facebook, were invented to help connect Millennials with friends and communities. These platforms allowed them to share photos and personal information with family, friends, and strangers (Oblinger & Oblinger, 2005). Further studies indicated that the Internet helped students make new friends, as well as improve relationships amongst their peers. Use of the Internet was so prevalent, that a study conducted by Lenhart, Rainie, & Lewis (2001), showed that a vast majority of teenagers (76%) would experience withdrawals from the Internet if it were not available.

Second, the Millennials are optimists (Sax, 2003). They are optimistic about their future and feel confident in their technological abilities. Millennials were the first to have had personal

cellular phones and computers in their bedroom, thus allowing them to develop multitasking skills (Lancaster & Stillman, 2002).

Third, Millennials are inductive learners (Oblinger & Oblinger, 2005), which means they learn better through discovery, rather than lecture, and embrace interaction and engagement in the learning environment. This allows them to observe, make hypotheses, and solve problems by making these observations.

Finally, Millennials are gadget fanatics (Oblinger, 2003). The gadgets, such as cell phones, iPods, Personal Digital Assistants (PDAs), pagers, desktop computers and laptop computers allow Millennials to stay virtually connected at all times (Klopfer & Yoon, 2005).

In 2015, the Pew Research Center conducted a study asking members of the Millennial generation to describe their generation. The respondents were provided with a list of traits and were asked if each trait applied to their generation. The results revealed that Millennials used more negative terms than other cohorts to describe their generation. Figure 3 shows the percentages of millennials who agreed which listed traits described their generation. Positive or neutral traits are in blue, while negative traits are in red. Furthermore, the figure provides a visual of the characteristics of the Millennial generation.

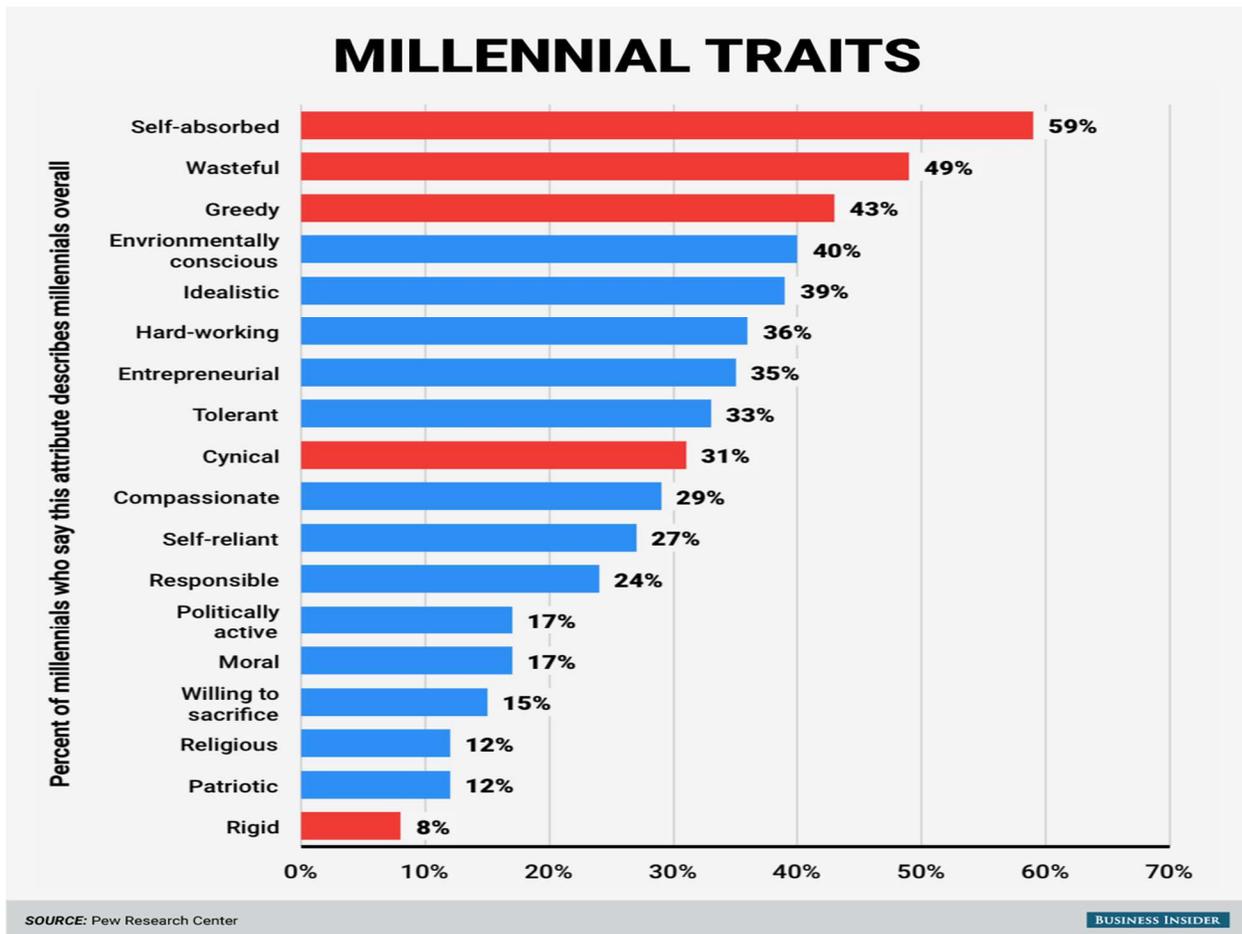


Figure 3. Millennial traits from the Pew Research Center (2015)

Generation Z

This study focuses on Generation Z Teacher Candidates, individuals born in or after 1995. There is a lack of research, however, regarding Generation Z Teacher Candidates because this is the newest generation that will be entering the teaching field within the next year. What is offered here is a review of the research that depicts Generation Z as a group.

First, Generation Z was raised during unstable times. Though too young to remember the ramifications associated with 9/11, they grew up in a difficult economic environment which helped to shape their perspectives (Breiburd, 2017). For example, this cohort was raised during the global recession of 2008 and vigilantly observed their parents as they slowly recovered and

tried to regain stability, both financially and personally (Stillman & Stillman, 2017). Raised by Generation X parents, individuals born between 1965 and 1981, who also witnessed much rise and fall during their own youth and maintain skepticism toward both leaders and institutions, have parented their Generation Z children with a realistic, conscientious, and do-it-yourself attitude (Seemiller & Grace, 2017). Additionally, Generation Z is a more vigilant group that leans towards practical careers and choices and shies away from perilous behaviors (Scott, 2016). Generation Z has grown up in a society that has seen an increase in terrorism; they have been witnesses to wars in both Afghanistan and Iraq; they have seen the implications of gun violence in schools; and have seen racism that continues to plague our culture (Breibur, 2017).

Second, Generation Z suffers from Fear of Missing Out (FOMO) anxiety (Mohr & Mohr, 2016). FOMO is an anxious feeling people have when they feel others may be having a good time without them; it often leads to a constant checking of social media to see what friends are doing and it is a term generally associated with young adults. A study published in *Motivation and Emotion* (2018), conducted by scientists Marina Milyavskaya, Mark Saffron, Nora Hope, and Richard Koestner, at McGill University, examined the social psychology of FOMO. They wanted to see how FOMO affected first-year university students. Their hypothesis was that FOMO would be associated with several negative outcomes, such as stress, emotional disturbances, lack of sleep, and an increase in fatigue. The study lasted for approximately one semester. Their findings showed that FOMO was present during parts of the day, but mostly later in the day and higher toward the end of the week. Greater FOMO existed among those who had more personal obligations, such as working or studying. Furthermore, the study indicated that FOMO was felt by all participants, regardless of temperaments, such as extraversion and

neuroticism. FOMO was associated with stress, fatigue, insomnia, and psychosomatic symptoms (Milyavskaya, Saffran, Hope, & Koestner, 2018).

Third, for their entire lives, Generation Z are true digital natives, in that they have had access to everything they could possibly need to know by a simple swipe on their smartphones (Tysiac, 2017). Generation Z spends an average of nine hours per day on their cell phones, and 91% say they sleep with their digital devices right next to them (Pew Research Center, 2014). Sparks & Honey (2014) reported that this cohort spends 41% of their time outside of school with computers, compared to ten years ago, when the percentage was only 22. A follow-up study was conducted by Milyavskaya, Saffran, Hope, and Koestner (2018). This time the scientists wanted to find out if FOMO was linked to social media usage. Participants were presented with a scenario that had them participate in an activity that involved social media and another activity that did not allow them to use social media. FOMO was reported for the activity with no social media usage. Negative emotions and feelings of distraction were related. It may be concluded that FOMO causes feelings of anxiety in Generation Z. Not having the ability to be bonded with the world throughout the day can have negative consequences (Stillman & Stillman, 2017).

Third, the literature suggests Generation Z wants to explore multiple roles and activities at the same time, given their attention span of only eight seconds, down from 12 seconds for Millennials (Shatto, 2016). Despite having a short attention span, Generation Z can multitask efficiently, while being more productive (Adecco, 2015). This skill is linked to their extensive access to information obtained from social media networks from the time they could click a button or swipe a smartphone and live in a world with continuous updates (Beall, 2017). They have a unique ability to process a great deal of information at one time (Iorgulescu, 2016). Since

Generation Z's familiarity with constant connection comes naturally, it may not impact their job performance (Patel, 2017).

Fourth, per a Barnes and Noble College study (2016), Generation Z is inclined to be more financially driven than their previous counterparts and that there is also a strong need for security. Adecco (2015) found that the primary personal concern for this generation was the ability to obtain a job. It is their desire to be employed by only one company for a lengthy amount of time; however, the average length of staying at a job for this generation is three years. This cohort wants to move up the career ladder and expects to work for several companies within their lifetime because of a company's lack of promotional gains (Adecco, 2015). Obtaining a job that requires more schooling than the average four-year degree which may require more student debt, is something Generation Z is extremely cautious about because they witnessed family members struggle through the recession in 2008 (Adecco, 2008; Patel, 2017).

Additionally, members of Generation Z state that salary is the most important factor in selecting an employer (Stillman & Stillman, 2017). They gravitate toward security and money (Patel, 2018). However, if Generation Z does not feel appreciated for their work, they may move on. To them, jobs are not about loyalty; they are about feeling valued and respected (Beall, 2017). Competitiveness also represents Generation Z, and they would rather have rewards and awards based on their individual performance rather than a team's success.

Figure 4 is an infographic provided by the Institute for Corporate Productivity (i4cp) that provides a visual of the traits and influences of Generation Z. While there is an immense amount of research based on the characteristics and needs of Generation Z, the literature regarding Generation Z Teachers Candidates remains vague.

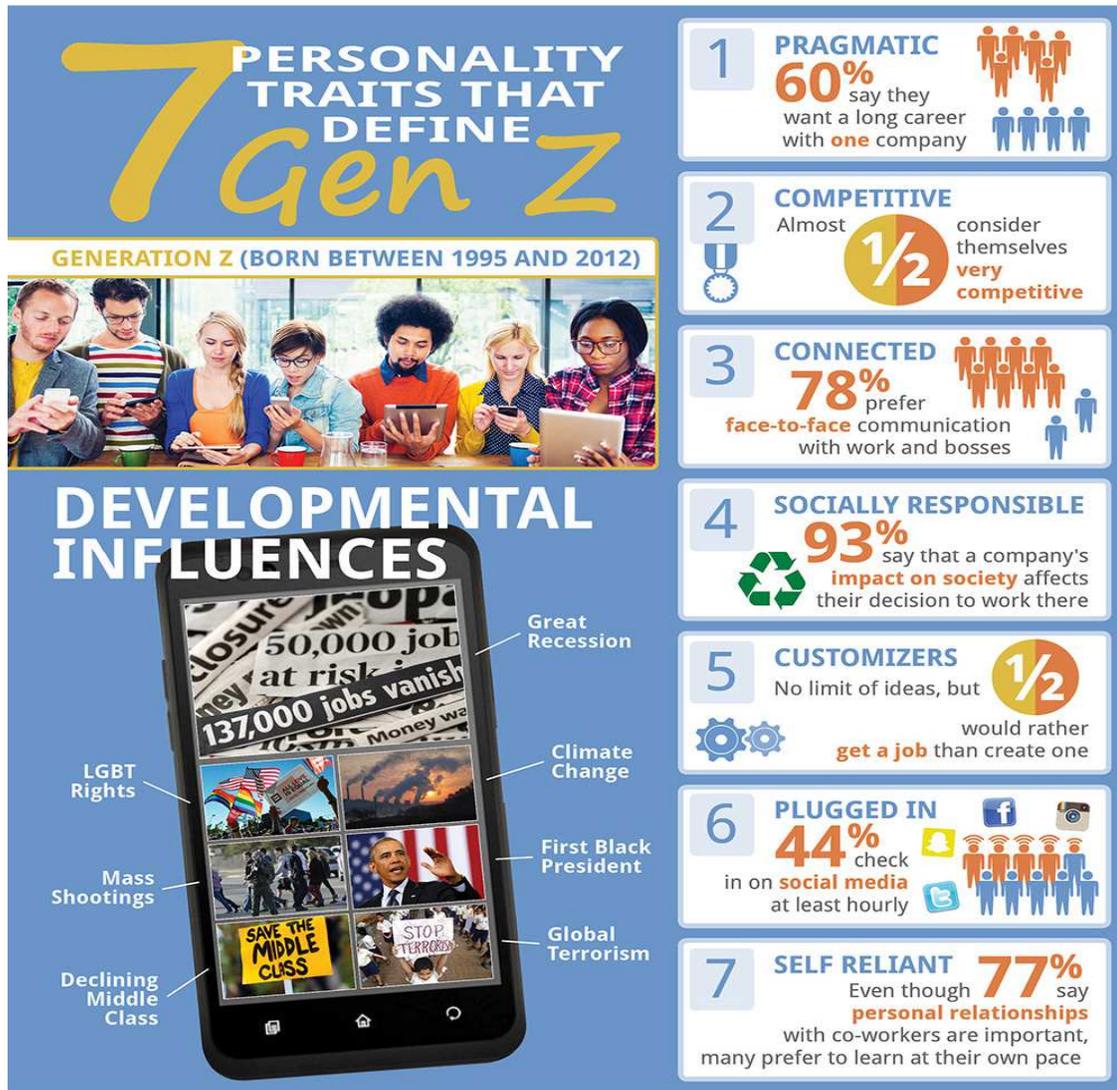


Figure 4. An infographic that shows the traits and influences of Generation Z. Retrieved from <https://www.i4cp.com/productivity-blog/2016/03/03/infographic-7-personality-traits-that-define-gen-z>

Beliefs about Caring

Caring has become a topic prevalent in the research related to Generation Z. In a recent study conducted by the American Psychology Association’s annual Stress in America report (2018), approximately 3500 interviews were conducted with people ages 18 and older, in addition to 300 interviews with teenagers aged 15 to 17. The study found that members of Generation Z conveyed the worst mental health of any generation to date. The study also

revealed that 91% of Generation Z have displayed symptoms such as anxiety or depression. Stress seems largely to blame for their poor mental health. The study reported that factors, such as gun violence, mass shootings, political turmoil, rise in suicidal rates, and migrant family separations have contributed to the stress in Generation Z. Thirty-seven percent of Gen Z individuals have testified to receiving help from mental health professionals, which is also higher than any other previous generation. Possibly due to a strong social network, the research also suggests Generation Z has high levels of loneliness because of less direct interaction with individuals.

Because of Generation Z's ability to recognize their struggles, they are empathetic about a variety of issues. A study conducted by media company Awesomeness and the research firm Trendera (2017) presented Generation Z as the generation of equality. The study was conducted by inviting over 1,500 Generation Z teenagers across the country to complete an online survey, which was optimized for mobile use. Over 1,100 teenagers completed the survey with a mobile device. The study showed that Generation Z desires to have an active voice on matters that will impact their world, such as the Black Lives Matters movement, transgender rights, and feminism. Additionally, the study (2017) revealed that they worry about social justice, climate change, and political activism.

The foundation of the basic relationship between teachers and students is formed from teacher beliefs (Ullucci, 2007). Teachers' perceptions are cultivated by values that exists in society and are influenced by cultural, social, and historical contexts they experience (Schultz, Jones-Walker, & Chikkatur, 2008). The perceptions that Generation Z have been subjected to have led to them to possess a caring attitude. An important characteristic of exhibiting a caring ethos is teacher knowledge of students' needs and interests (McBee & Westcott, 2008).

Nell Noddings (2013), American feminist, philosopher, and educationalist, insists that teachers must “provide students with opportunities to practice caring” (p. 121). According to Noddings, there are specific tasks that teachers can do to assist in showing and receiving care in the classroom (2013). First, teachers must model caring. There are specific ways to accomplish this, such as gentle reminders, a smile, and making eye contact. The second important task is creating and participating in dialogue. Dialogue means to be able to listen and speak without fear. This also helps create critical thinking skills. These skills will be mastered with meaningful intention on the part of the teacher. The third task is to allow multiple opportunities to practice caring. This includes having the students partake in collaborate and small group activities and creating classroom communities. The teacher is able to observe how students work together and view who is being left out of activities, and he or she can foster acceptance for all students and enforce what it means to be a caring community. The final task teachers can do to assist in showing and receiving care is confirmation. Students need to know they are worthy. In order to accomplish this, teachers need to confirm to students they are capable, able, and earnest individuals. Confirmation does not justify bad character choices; however, it does allow the student to reflect on the bad choices he or she made (2013). Caring is an important characteristic associated with in Generation Z.

Diversity Perceptions

Diversity will be a prominent representation of Generation Z because they represent the most diverse generation to date. Future educators will enter classrooms that embody different types of cultures and learners. Because Generation Z has grown up in a diverse society, they may be better equipped to accept a miscellany of students that represent different cultures, as well as different learners (Mohr & Mohr, 2017).

Cultural diversity is defined as “the acceptance of the various ethnic cultures in schools, organizations, businesses, neighborhoods, or cities” (Nelson, 2015). In schools, cultural diversity should be viewed as an opportunity for both teachers and students, not as a challenge. Every student brings with them to school a unique set of characteristics that can deeply impact learning (Nelson, 2015). Almost 60% of adults aged 35-plus agree that Generation Z “has more in common with their global peers than with adults in their own country,” thus making them “more global in their thinking, interactions, and reliability” (Beall, 2017).

Research conducted by Frank N. Magid Associates (2017) suggests that Generation Z is the most diverse of all generations to exist. In 2015, only two percent of Generation Z was a part of the workforce; however, by 2020, an estimated 30% of the workforce will represent Generation Z, as well as 40% of the consumer market. Generation Z celebrates diversity and plans to change the conversation of what it means to embrace diversity.

With this drastic increase in cultural diversity, education will represent a variety of ideas and projects to create learning environments that are inclusive, protected, and unbiased for students of varying backgrounds. Classrooms are made up of students from different backgrounds and teachers should be willing to welcome the cultures that will be exist amongst all students (Shulman & Mesa-Bains, 1993).

Generation Z also represents an array of students with different gender identities. According to a survey of over 10,000 people distributed by the Pew Research Center (2019), 60% of Generation Z believe that forms, surveys, and documents that ask about gender should include options in addition to “male” and “female.” Gender-neutral alternatives, such as “agender, androgynous, bigender, binary, cisgender, dead name, gender fluid, gender non-conforming, gender questioning, genderqueer, misgender, non-binary, passing, queer,

transgender, transsexual person, and two-spirit,” should be present on documents and should be actively discussed (Adams, 2017). Additionally, the Innovative Group (2016) reported that 56% of people born in Generation Z know someone who identifies as one of these gender pronouns.

Because diversity significantly impacts education, Fives and Buehl (2016) reflected on what new teachers need to do to accept cultural diversity in the classroom. Teachers need time to engage in explicit reflection on their beliefs regarding cultural diversity and understand the possible implications of their beliefs. Areas of impact can be outlined in five different themes: 1.) beliefs about their own cultural self-efficacy; 2.) beliefs about culturally diverse students and families; 3.) beliefs about cultural content and knowledge; 4.) beliefs about cultural context and environment; and 5.) beliefs about culturally thoughtful teaching practices and methodologies (Civitillo, Juang, & Schachner, 2018).

Participatory Learning (Situating Learning)

The Participatory Learning Theory (PLT; Lave & Wenger, 1991), also known as the Situating Learning Theory (SLT), recognizes individuals as committed pupils in the progression of their learning. A study conducted by Barnes and Noble College (2016) confirms that Generation Z students refuse to be submissive pupils, thus they welcome the opportunity to engage in social learning environments, which enables them to be active contributors of the knowledge obtained. Additionally, PLT is founded in constructivist theories of learning, which posit that knowledge is dynamically created instead rather than conveyed (Shen, Wu, Achhpiliya, Bieber, & Hiltz, 2004). Generation Z prefers to be keenly engaged in opportunities that may result in a successful career (Seemiller & Grace, 2017). This concept should allow for a collaborative perspective within the schoolroom environment of future Generation Z teachers.

The SLT states knowledge is logically linked to authenticity, context, and culture (Lui & Su, 2009). Learning is a matter of actively engaging in the world, while meaning is the ability to experience the world through meaningful participation (Lui & Su, 2009). By the time Generation Z enters higher education, they are fully engrossed in current events, popular culture, and global trends (Kozinsky, 2017). According to a qualitative study conducted by Seemiller and Grace (2017), Generation Z has plans of changing the world by solving complex tribulations. Their study included 1300 Generation Z students from 50 institutions who shared their examples of how they want to be the change agents of tomorrow. For example, the students claimed they work to live, not live to work. They wanted to work for employers who are community-minded. Work, to them, was not simply receiving a paycheck. Though social media and texting is the norm for Generation Z, they prefer environments that value face-to-face communication with both their peers and bosses. Another example described in the Seemiller and Grace (2017) study was the desire to solve environmental issues that previous generations failed to solve. They want their employers to have the same passion toward the environment, as well as toward other issues they find critical.

This cohort is acquiring knowledge based on their likes and dislikes, and they are attaining it on their terms, not on the terms set forth by another individual or different generation. Future Generation Z teachers desire to find creative ways to offer avenues to engage students in meaningful and appropriate social change initiatives.

Individuals learn by applying their knowledge to relevant issues, actively creating and developing their understanding (Shen et al., 2004). Generation Z Teacher Candidates should be given opportunities to engage in curriculum based on this theory because it allows for

meaningful interactions for students of all genders, races, and cultures to interact in a productive environment. (Stillman & Stillman, 2017).

Participatory Learning Theory (PLT) involves people being positive contributors in the world and creating meaning. Generation Z learners have grown up in a marketing society that has provided them with opportunities for personalized experiences (Tysiac, 2017). In a survey conducted by generation experts (and father and son duo) David Stillman and Jonah Stillman, 56% of Generation Z stated they would like to write their own job descriptions, and 62% wanted to tailor their own career paths (2017). The way in which knowledge is generated with the PLT approach could allow these future educators the opportunity to think differently about groups and associations with which they are linked, thus creating positive significance in the educational setting.

Socially mediated learning activities contribute to PLT such as virtual computing, remote communications, simulations, multimedia, and social networking. Social media has been a part of Generation Z's entire life and has been deeply integrated into every aspect of their lives (Kozinsky, 2017). Generation Z is truly global, digital, and visual because of their childhoods and upbringing (Breibur, 2017). Such technological practices should allow prospective teachers to participate in collaborative activities that permits them to ponder current knowledge and modern-day situations and yet are satisfactorily scaffolded to allow for profound and safe involvement by a broad assortment of learners in a limited amount of time (Cunningham, 2009). Generation Z are digital natives who have had access to cellphones their entire lives, which means "they aren't likely to be impressed with an employer who has a new dashboard, Facebook page, or website, because they are just going to assume that the latest technology exists in the

workplace” (Tysiac, 2017, p. 16). Figure 5 is a summary of the situated learning theory, depicting the three main characteristics.

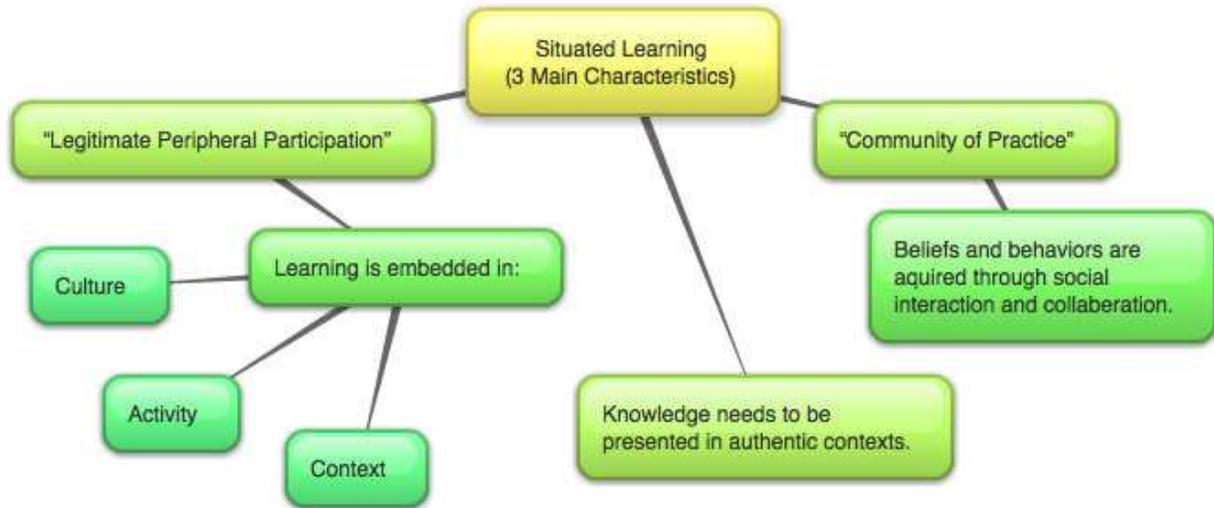


Figure 5. Lave & Wenger’s situated learning theory. Retrieved from https://magmill.files.wordpress.com/2011/07/y1ju4sb_new-sheet.jpg

Social Cognitive Theory

Social cognitive theory originated with Canadian psychologist Albert Bandura in the 1960s as the Social Learning Theory. Bandura (1977) and his students conducted various research experiments in 1961 and 1963; the most notable was known as the Bobo doll experiment. The test studied when and why children demonstrate hostile behaviors and how children learn specific behaviors simply by observing. However, in 1968, the theory was given a new name, the Social Cognitive Theory (SCT). The renaming of the theory was meant to emphasize the significance of cognition regarding behaviors. Bandura maintained that human behavior was elicited by behavioral, personal, and environmental stimuli (1977). Furthermore, he acknowledged that several behaviors were the product of direct guidance or training of some kind.

Though Generation Z prides itself in wanting to be active participants of their learning and are incredibly social, research shows they may lack the necessary skills to work collaboratively with others. (Igel & Urquhart, 2012). A recent survey study conducted with over 1,000 college students from United States between the ages of 18-24 (Adecco, 2015) showed how Generation Z favored independent work and were not team players. The purpose of the study was to understand how Generation Z feels about the world of work. Therefore, it may be ideal to associate Generation Z with the Social Cognitive Theory (SCT; Bandura, 1977).

SCT is centered on the premise that individuals learn by observing others, including their surroundings, the environment, and the behaviors associated with them. These three variables highlight the belief that individual knowledge transpires in a social environment: “By observing others in their surroundings, people attain knowledge of rules, skills, abilities, strategies, principles, and mindsets” (Social Cognitive Theory, 2001). In a 2014 *Innovation Survey* conducted by Northeastern University, it was reported that Generation Z students are true observers. They prefer to watch others learn before applying new learning for themselves. Much of what they learn comes from viewing others, such as on YouTube (Seemiller & Grace, 2017). These observations, however, are not taking place in a social environment; they are instead independently acquiring learning and knowledge.

Additionally, Generation Z has grown up in a virtual setting, acquiring learning through an abbreviated language that has perhaps hindered their interpersonal and socialization skills (Iorgulescu, 2016). Though, by learning through an abbreviated language, the acquisition of learning has been accomplished at their pace and on their own terms, and they can develop meaning with the new knowledge before having to share it with others (Seemiller & Grace,

2017). Sparks and Honey (2014), a market research firm, reported that 85% of this cohort engage in some type of research online without any type of interpersonal connection.

The literature has also shown that Generation Z value their peers and instructors as resources and appreciate collaboration, especially when it is on their own terms (Seemiller & Grace, 2017). Additionally, if collaboration is necessary, they want it available to them twenty-four hours a day, seven days per week (Breibur, 2017). They also expect immediate feedback from both their colleagues and superiors (Shatto & Erwin, 2016). Figure 6 is a visual representation of the social cognitive theory.

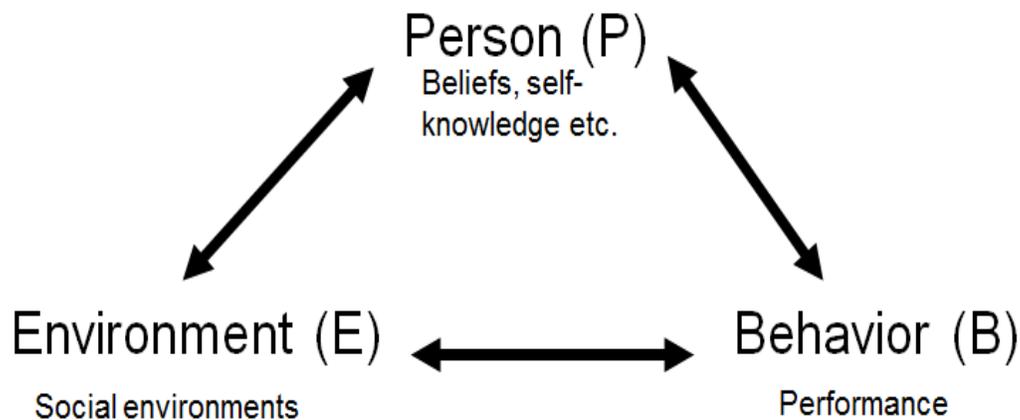


Figure 6. Albert Bandura's social cognitive theory. Retrieved from <http://youniting.blogspot.com/2012/10/social-cognitive-theory-in-online.html>

Self-Efficacy

Current research shows changes in Generation Z's attitudes, behaviors, and lifestyles. The research has been both positive and negative (Dimock, 2018). A recent Gallup study reported that Generation Z will be less likely to be engaged in the workplace and more likely to be ambivalent than those from previous generations (Hodges, 2016). However, the study also indicated they are idealistic and optimistic, trying to find meaning and purpose in both

their life and career (Hodges, 2016). Self-efficacy “helps determine our life choices, it motivates us, and it helps us deal with failures and setbacks in life” (Mahto, 2006, para.16).

Bandura posited that individuals do have the ability to change their environments and behaviors (Mahto, 2006). Therefore, a great deal of responsibility is placed on individuals to self-regulate. Bandura referred to this type of self-regulation as self-efficacy: the idea that people decide how to behave is based more on their belief in their own capabilities of accomplishment rather than in their knowledge or skills (Pajares, 2002).

Self-efficacy is vital to SCT. Self-efficacy can increase because of past successful incidents, observing successful social models, obtaining authentic social influences, and positive physical and emotional states (Bandura, 1977). It is because of these conceptions that SCT offers much insight and opportunities in understanding how future Generation Z teachers can impact the realms of a schoolhouse setting.

Self-Efficacy of Preservice Teachers

Currently, no research exists regarding the self-efficacy or teacher sense of efficacy of Generation Z Teacher Candidates, which is why this study is significant. However, an abundance of literature pertaining to the efficacy of preservice teachers is available. Teacher efficacy is a motivational construct that impact outcomes in the classroom (Bandura, 1997). Research has shown that preservice teachers’ self-efficacy increases during teacher education enrollment (Woolfolk & Hoy, 1990), but then decreases after graduation and continues to decrease until the end of their first year as a practicing teacher (Moseley, Reinke, & Bookout, 2003; Woolfolk & Hoy, 2000). The reason for the decline is unknown, but speculations have been made (Pendergast, Garvis, & Keogh, 2011). The assumption that seems to be the most significant is

that support decreases when preservice teachers enter the teaching field; mentorship lacks for new educators, thus impacting their self-efficacy (Goddard, Hoy, & Woolfolk-Hoy, 2000).

A study conducted by Vesile Demirtas (2018), showed that preservice teachers' self-efficacy beliefs were linked to whether they liked children. The study was conducted with 368 teacher candidates: 108 candidates studying special education; 136 studying preschool; and 136 studying primary grades. Teacher candidates who urge students to actively participate in activities related to school functions to increase their self-efficacy have a desire to teach because of internal influences (2018). Thus, the more teacher candidates like children, the higher job satisfaction they will have. Their motivation increases, as does their self-efficacy (2018).

There have also been studies conducted regarding factors that may increase teacher candidates' self-efficacy. One such study (Chichekian & Shore, 2016) selected 33 empirical studies and synthesized what research says about teachers' self-efficacy regarding instruction in the classroom. There were nine occurrences that increased teacher candidates' self-efficacy: extensive practice for instruction implementation; modeling; visiting classrooms in action; having earlier research experiences; reflection on past experiences in relation to instructional planning; support from mentors; experiencing other teaching sites, such as museums; exploring their own personal beliefs regarding learning and teaching; and having research experiences during their teaching education preparation (2016).

Conclusion

The literature presented here provided a synopsis of the research that currently exists to describe the characteristics of Generation Z and general self-efficacy and teacher sense of efficacy of Generation Z Teacher Candidates and how these characteristics may impact the educational field. There are implications, however. There is a lack of research on the general

self-efficacy and the teachers' sense of efficacy that exist among this brand-new batch of teachers exiting college and entering classrooms.

CHAPTER III: METHODOLOGY

The purposes of this study were to determine and describe the general self-efficacy (GSE) and teacher's sense of efficacy (TSE) associated with Generation Z Teacher Candidates and how they view their role in education as a first-time teacher. Teacher Candidates, both field-based students and clinical teachers, were chosen for this study because little research is in existence regarding Generation Z; furthermore, Generation Z Teacher Candidates are comprised of what is the most recent generational group of future educators. Therefore, this study provided a portrayal of what might be expected from potential future educators. The findings from the research may be used to assist teacher education programs, cooperating teachers, principals, superintendents, university faculty, and hiring committees in understanding Generation Z Teacher Candidates' general self-efficacy (GSE) and teacher's sense efficacy (TSE) to gain an understanding of the generation's strengths and weaknesses. The theory-based and data-based study was driven by the following research questions:

1. What is the general self-efficacy (GSE) of Generation Z Teacher Candidates?
2. What is the teacher's sense of efficacy (TSE) of Generation Z Teacher Candidates?
3. Based on their general self-efficacy and teacher sense of efficacy, how do Generation Z Teacher Candidates view their role as first-time educators, regarding students, colleagues, and the teaching profession?
4. What are the perspectives of Generation Z Teacher Candidates on the importance of self-efficacy as it relates to their ability to adjust from being a student to teacher?

This chapter describes the methods that were used to conduct the study. The sections include research design; instrumentation; pilot study; subject selection; data collection; data

analysis; delimitations; assumptions; feasibility; ethical considerations; and trustworthiness and rigor.

Research Design

This study utilized an explanatory sequential mixed methods inquiry. Mixed methods research employs a tactical and focused combination of both quantitative and qualitative data collection and examination for its study (Saldaña, 2011). Furthermore, in order to answer the research questions, the model allowed the researcher to collect, analyze, interpret, and synthesize quantitative and qualitative data (Creswell & Clark, 2011). Due to the non-experimental nature of this research study, no causal inferences were drawn. Using the quantitative data, the researcher analyzed the statistical data regarding Teacher Candidates' general self-efficacy, as well as their teacher sense of efficacy. The qualitative data collected from two focus group interviews allowed the researcher to explore the views of Generation Z Teacher Candidates regarding the students they will teach, their future colleagues, and the teaching profession. In general, the focus interviews provided perspectives on the importance of efficacy as the participants transition from student to teacher.

The explanatory sequential mixed methods inquiry design was conducted as a two-step process (Creswell & Clark, 2011) (See Figure 3). The explanatory sequential mixed methods research design cannot be used as the origin of a causal relationship, where one variable affects another (Etheridge, 2004). During the first phase, quantitative data are collected and examined. The second phase, the collection and examination of the qualitative data, is then developed to explicate the quantitative results more thoroughly than if the researcher were solely relying on quantitative data. Both sets of data, quantitative and qualitative, are then synthesized to examine links to underlying theoretical principles and provide discourse that leads to informed

conclusions. The motivation for using this method was that by obtaining both quantitative and qualitative data the researcher was able to present a thorough understanding of the research problem (Etheridge, 2004).



Figure 7. Explanatory sequential mixed methods model

Quantitative Research Design

The quantitative component of the study was a descriptive research design (Jackson, 2009) that was used to identify and distinguish general self-efficacy and teacher sense of efficacy commonalities amongst Generation Z Teacher Candidates. Descriptive research designs only describe a set of observations of the data collected (Jackson, 2009). Furthermore, descriptive research is a non-experimental quantitative approach, and because there is no manipulation of variables, causal inferences cannot be drawn from the research (Creswell, 1994). The researcher collected quantitative data with the use of two surveys. Once synthesized and analyzed, this quantitative component could provide teacher education programs, cooperating teachers, principals, superintendents, university faculty, and district hiring committees the opportunity to gain a concrete representation of Generation Z Teacher Candidates who are on the verge of entering the educational field. It needs to be noted that the intent was not to answer questions as to when, how, or why the characteristics occurred. The purpose of this component was to identify commonalities that are present in Generation Z Teacher Candidates, as well as offer a description of their general self-efficacy and teacher sense of efficacy.

Qualitative Research Design

The qualitative component of the study utilized two focus group interviews. The purpose of the qualitative part of this study was to further explore the responses from Generation Z Teacher Candidates on the two surveys in order to reveal richness, depth, and complexity (Gibbs, 2007). Focus group interviews are mostly considered nonthreatening; therefore, participants can express themselves, as well as clarify their positions and viewpoints on several topics (Creswell & Clark, 2007). Additionally, conducting face-to-face interviews with focus groups provides for a speedy method of interviewing by speaking with a few people at a time (Marshall & Rossman, 2011). Focus group interviews fall under an interpretivism theoretical perspective. Interpretivism is the “study of social life that assumes that human action is inherent to unearth meaning” (Schwandt, 2007). Glesne (2016) suggested that this perspective involves long and detailed interactions with relevant people in one or more locations. Each interview participant brought a unique set of personal experiences. The researcher observed, asked questions, and interacted with participating individuals. After completion of the interviews, the researcher’s write-up was descriptive in nature (Glesne, 2016).

Instrumentation

The instruments used for both phases of the study, quantitative and qualitative, were distinct. For example, the quantitative phase of the study consisted of two combined surveys, while the qualitative phase of the study included two focus group interviews. What is offered in this section is a complete description of the instruments that were used for the explanatory sequential mixed methods inquiry.

Quantitative Instrumentation

For the purpose of obtaining the quantitative data in phase one, the researcher asked the participants to use their device, either mobile or laptop, to log in to the surveys. Surveys are defined as “the collection of information from a sample of individuals through their responses to questions” (Check & Schutt, 2012, p. 160).

The first instrument that the researcher administered was the General Self-Efficacy scale (GSE). The scale is a self-report measure of self-efficacy and was developed by Ralf Schwarzer and Matthias Jerusalem in 1981 in Germany and has been translated into several languages (1995). The survey instrument contains a Likert scale score for each question, ranging from 1 to 4. Higher scores indicate a strong belief in general self-efficacy while lower scores denote a frail belief in general self-efficacy. The ten-item survey has been studied and has indicated that the GSE has high reliability, stability, and construct validity (Leganger, Kraft, & Roysamb, 2000). Furthermore, the scale is configurally equivalent across 28 nations, and it forms one universal dimension (Leganger et al.). Internal reliability was confirmed with Cronbach’s alpha, which ranged between 0.75 to 0.94 across numerous translated versions (Rimm & Jerusalem, 1999). The interactions between the social cognitive variables, such as purpose, execution of intentions, outcome expectations, and self-regulation are excessive, which confirms the validity of the scale (Luszczynska, Scholz, & Schwarzer, 2005). The survey is available online to the general public at no cost.

The second instrument the researcher employed was the Teachers’ Sense of Efficacy Scale (TSES) developed by Megan Tschannen-Moran and Anita Woolfolk Hoy (2001). This instrument is also available to the general public at no cost. The purpose of the instrument is to measure the level of teacher self-efficacy beliefs regarding student engagement, instructional

practices, and classroom management (Tschannen-Moran & Woolfolk Hoy). There are currently two forms of the survey: a 24-item scale and a 12-item short form. The researcher utilized the long form, or 24-item scale survey. Participants rated each question on a Likert scale of 1 to 9. Option 1 indicates a response of none at all; option 3 indicates very little; option 5 indicates some degree; option 7 indicates quite a bit; and option 9 indicates a great deal. Options 2, 4, 6, and 8 are available as a between indicator. The long form has a Cronbach's reliability alpha range of 0.87 to 0.94 (Tschannen-Moran & Woolfolk Hoy). Additionally, the instrument has been validated by researchers who have utilized it in their research. It has been stated: "Our research, coupled with those Tschannen-Moran and Hoy, suggest that the TSES should be the preferred measure of teachers' sense of efficacy in future research" (Heneman, Kimball, & Milanowski, 2006). Furthermore, construct validity was confirmed with factor analysis (Tschannen-Moran & Woolfolk Hoy).

Both surveys were administered through Qualtrics in an online format. Qualtrics is an online research and vision platform used to create surveys and gather data. Utilizing this platform was in compliance with the Internal Review Board (IRB) at the regional four-year university in South Texas where the research was conducted. The researcher imported the survey into Qualtrics, which were then exported into the Statistical Package for the Social Sciences (SPSS) upon completion of the surveys. Combined, the two surveys consisted of 32 questions and averaged approximately 15 minutes to complete.

Qualitative Instrumentation

In alignment with the explanatory sequential mixed methods model, the second phase of the mixed methods inquiry consisted of two focus group interviews, conducted consecutively. The quantitative data were analyzed, and the results were used to formulate the lead questions for

the focus group interviews, as well as possible back-up questions. The focus group interview questions were placed in two tiers. Additionally, there were questions included that did not pertain to the survey results, but rather were generated from the literature.

Tier one questions were questions the researcher felt must be asked, the lead questions. Tier two questions consisted of back-up questions and/or questions that were stated in a different manner than the tier one questions in case the participants did not fully understand tier one questions. The researcher cross-referenced the questions with the question number as they appeared on the original survey from the quantitative phase. This allowed the researcher to easily refer back to the quantitative data during the focus group interviews. Additionally, some of the questions were original questions that were developed solely based on the literature. The researcher insisted on asking these questions because they were relevant to the study and are representative of Generation Z. The interview questions, tier one and tier two, are summarized in table 1.

Table 1

Focus Group Interview Questions: Tier 1 and Tier 2 Questions

Note: GSE = General Sense of Efficacy; TSES = Teacher Sense of Efficacy Scales

TIER 1: MUST ASK QUESTIONS	TIER 2: BACK-UP QUESTIONS
Besides attending school at the university, do you have a job that brings in income? What kind of job do you have? *relates to demographic question	
What is it you want others to know about your generation that might be valuable to the teaching profession? *original question based on literature	Explain whether or not you believe your self-efficacy has played a role in leading you to where you are today? *original question based on literature
Do you prefer to work by yourself or with a team (collaboratively)? Why or why not? *original question based on literature	What is your experience working with collaborative learning? Do you enjoy collaboration? *original question based on literature

What are some examples of how you will get your students to value learning? #19 from TSES	What abilities do you have that would help you solve difficult problems? #1 from GSE
As you may be aware, Texas has been ranked at the bottom in terms of educational standards. What do you think you can do to help school improve, in terms of educational assessments? #28 from TSES	Some schools will lack adequate technology, materials, and parental support. Will that sway your decision as to whether or not you take a job at the school? Why or why not? *original questions based on literature
Families need support. What are some of the ways you would assist families in helping their children do well in school, especially the families you never hear from? #32 from TSES	
Trouble scenario: Johnny has been asking to use the bathroom since lunchtime, but when asked, you told him to wait. At the end of the day, Johnny asked one more time. You stated he would be home in a few minutes and could go then. However, Johnny ended up wetting his pants on the way home. Shortly after school ends, the parents show up to your classroom, extremely upset, wanting to know why you did not let Johnny go to the bathroom. You obviously realize that Johnny had been asking, and you had told him no, twice. You know that this was a mistake on your end. What kind of solution/resolution would you give to the parents? #8 from GSE	Problem scenario: A lively class discussion has turned into an intense argument involving 4-6 students. Hostile and damaging comments have been exchanged. What are some solutions that you could do to address this problem? (Wingert & Moliter, 2009) #9 from GSE
Do you experience FOMO (fear of missing out)? If so, how do you plan to deal with this during the school day? *original question based on literature	Do you believe your boss should praise you often? Why or why not? *original question based on literature
What are some of the ways that you would have students think critically in your content area? #2 from GSE	What would cause you not to invest the effort needed to solve problems? #6 from GSE
What are some of the ways you would foster student creativity? #22 from TSES	How do you craft good questions for your students? #21 from TSES
What kind of challenges will you provide for very capable students? #34 from TSES	How do you plan to manage your students who struggle with low self-efficacy? *original question based on literature
Comprehension is such an important skill. How will you gauge student comprehension of what you have taught? #20 from TSES	What would you do for students who possess low motivation? #14 from TSES

Considering you represent a new generation, what do you think needs to be done to embrace diversity and increase self-efficacy? *original question based on literature	Describe ways in which you can get through the most difficult students. #11 from TSES
Tell me some of the ways you would respond to defiant students. #31 from TSES	How would you calm a student who is disruptive and noisy? #25 from TSES
What kinds of resources do you have available that would help solve difficult problems? #1 from GSE	What strategies would you incorporate for students who are failing? #24 from TSES

Pilot Study

A pilot study was conducted before the research study to test and evaluate the two survey instruments. The researcher conducted the pilot study with one of her undergraduate classes at the same regional four-year university in South Texas where the research study was conducted. The students who were vetted were enrolled in the education program but were not considered field-based students or clinical teachers. Students were assigned the same two surveys to complete in Qualtrics. Feedback was provided, and minor adjustments to the surveys were made based on this feedback, such as numbering the questions and showing their status to completion of the survey.

A pilot study was also conducted prior to the start of the qualitative phase. The researcher vetted a different undergraduate class she taught and conducted a pilot interview with five participants. The pilot interview was conducted in a classroom at the same the same regional four-year university in South Texas. Open-ended questions served as a basis for the qualitative component of the study. Feedback was obtained from the participants and the order in which the questions were asked were revised and updated to match the research design.

Subject Selection

Participants for both the quantitative and qualitative phase of the study were vetted according to specific criteria. The following section specifies the requirements set forth for subject selection for both quantitative and qualitative phases of the study.

Quantitative Subject Selection

The study was delimited to current Teacher Candidates born in or after 1995. Teacher Candidates consisted of both field-based students and clinical teachers. Field-based students are students who are placed in schools two days per week, and the course is completed the semester before they enter clinical teaching. Clinical teachers are placed in schools every day of the week, during their last semester before graduation. Additionally, the characteristic-present subjects were currently enrolled in a regional four-year university education program in South Texas that offered field-based experiences and/or clinical teaching experiences. All participants were also working toward teacher certification. The researcher conducted the survey study at a four-year regional university in South Texas during the Teacher Candidates', both field-based students and clinical teachers, orientation meetings. Once the subjects had been recruited, they utilized their device, such as a mobile phone or laptop, and completed the two surveys that were created using Qualtrics. To maintain anonymity, all Teacher Candidates participated in the survey; however, if the subject did not qualify for the study because of their date of birth, Qualtrics ended the survey and no data was collected from those particular subjects. The study was conducted over the months of August and September of 2018.

Qualitative Subject Selection

A purposive sample of Teacher Candidates from the university's education program at a four-year university in South Texas were invited to participate in one of two focus group

interviews. The two focus group interviews were conducted consecutively. After analyzing the first focus group's transcript, the researcher then proceeded to the second focus group interview, approximately a week later. There were eight participants for each focus group interview and all fit the criteria stated above: born in or after 1995; enrolled in the university's education program during the Fall 2018 semester; and working towards teacher certification. Additionally, the participants had been asked to voluntarily provide their email addresses upon completion of the surveys for the quantitative section. This allowed the researcher to contact those who volunteered for times and dates of the interviews. The interviews were conducted on the university campus where the study occurred.

Because of the small sample size of the field-based students and clinical teachers, as well as the low response from participants interested in participating in the focus group interviews, both Teacher Candidate groups, field-based students and clinical teachers, were merged for the focus group interviews. The participants from both focus group interviewees agreed to share their perspectives about their general self-efficacy and teacher sense of efficacy. Both focus group interviews were conducted in November 2018.

Focus group interview 1. The first focus group interview consisted of seven field-based students and one clinical teacher. Seven participants were females and one participant was male. Four of the seven females were White and four were Hispanic, including the male participant.

Focus group interview 2. The second focus group interview also consisted of seven field-based students and one clinical teacher. All eight participants were female. One female participant was African-American, two were White, and five were Hispanic.

Data Collection

In alignment with the explanatory sequential mixed methods model, data collection occurred in two phases. The first phase consisted of the collection of quantitative data, which included obtaining data from two surveys. Upon completion of the quantitative data, the researcher proceeded to the second phase of the research study, the data collection of qualitative data. This section expands on the procedures used to collect all data.

Quantitative Data Collection

Quantitative data was obtained, with permission, from all Teacher Candidates, field-based students and clinical teachers, at a regional four-year university in South Texas during the Fall 2018 semester. The researcher attended two student orientations on two separate dates: one orientation for field-based students and one orientation for clinical teachers. The purposes of the orientation meetings were to provide teacher candidates valuable information regarding the expectations for the semester and to introduce teacher candidates to their site professors. The researcher introduced the study and its significance and asked for permission to complete the surveys. The surveys were completed and collected on-site with the use of either a mobile phone or laptop. The researcher was visible while the surveys were being completed, but far enough away not to view subjects' responses. Other faculty present agreed to step out during the duration of the completion of the surveys, which lasted approximately 15 minutes. Upon completion of the surveys, the students sat quietly and waited for further directions from the faculty leading the orientation.

Qualitative Data Collection

Qualitative data was collected from two focus group interviews. The researcher conducted and facilitated the focus group interviews at the regional four-year university in South

Texas during the 2018 Fall semester. The focus group interviews were audio-taped, transcribed, in order to be categorized by themes. Permissions to conduct and audio-tape the interviews were obtained from the university's IRB beforehand.

The first focus group interview was conducted on the morning of November 6, 2018 in a campus classroom at a regional four-year university in South Texas. The second focus group interview was conducted on the morning of November 13, 2018, also in a campus classroom at the regional four-year university in South Texas. Prior to the beginning of the interviews, the researcher provided participants with a brief synopsis of the study and spoke about how the focus group interviews were related to the previous surveys they had completed. Additionally, the researcher explained that they could talk freely amongst themselves during the discussion and reference their own experiences, as well as add commentary on the experiences of others. All participants had voluntarily provided consent during the collection of the quantitative data, prior to the administration of the surveys, so there was no need to obtain additional consent during the two focus group interviews. However, the researcher explained the measures that would be taken to protect their confidentiality and informed the participants that they could withdraw from participating in the study at any time. The researcher facilitated the focus group conversations using tier one and tier two questions (see Table 1), as well as questions that were generated from the literature, and encouraged discussion to ensue between the participants. Each focus group interview lasted approximately 45 minutes and generated a wide range of discussion.

Data Analysis

Data analysis was conducted in two phases. The first phase consisted of examining the quantitative data. Upon evaluating the quantitative data, the conclusions helped frame the second

phase of the study, the qualitative data analysis. This section expands on each phase of the data analysis process.

Quantitative Data Analysis

The raw data was exported into the Statistical Package for the Social Sciences (SPSS), which was used for the purpose of data analysis and manipulation. Descriptive statistics were used to summarize and organize the data (Creswell, 2002). Frequency tables provided visualization to construct mental pictures of the data. Examples of items included are demographics, sample size, maximum and minimum values, and averages. Means and standard deviations were also provided to represent the data. Data was checked for accuracy and is reported in the next chapter.

Qualitative Data Analysis

The focus group audio-taped interviews were transcribed and analyzed using a coding process. The process consisted of coding words, categorizing words and phrases, and then identifying common themes that ascended from the categorized words and phrases, also known as a three-step coding process (Saldaña, 2011).

The first step required reading and transcribing of each focus group discussion. The next step involved assigning codes to the texts. According to Saldaña, a code is a word or short phrase that assigns a summative attribute to certain language-based data. The researcher highlighted words and phrases that were present in both interviews in the initial coding. After this initial coding (Saldaña), the researcher went line-by-line in order to ensure no codes were missed. The researcher then sorted the data from coded words into categories. This type of categorizing allowed the codes to have a sense of order (Saldaña). Once categories of similar words had been obtained by reviewing the coded words, the researcher began to look for common reoccurring

themes. Creswell (2007) stated that themes are clusters of meaning that form from central ideas from focus group responses. The final step of the coding process involved a deep and comprehensive review of the resulting themes that methodically led to the development of several common themes and/or theories. Coding is considered a judgment call because researchers bring different aspects to the process, such as biases, temperaments, penchants, and coincidences (Sipe and Ghiso, 2004).

At the end of the coding process, the transcript was then reevaluated to ensure no themes had been overlooked. In order to provide credibility, the researcher asked a colleague to review the themes to ensure that she had viewed that data through a similar lens as the researcher. Upon assurance, the researcher then analyzed the findings to provide a thorough interpretation of the data (Saladaña, 2011).

Keeping with the explanatory sequential mixed methods inquiry, the quantitative and qualitative results were synthesized in order to draw conclusions, examine and discuss the findings, and offer theoretical and practical implications. Figure 9 provides a visual of the themes and subthemes that emerged from the two focus group interviews. A thorough description of these themes will be discussed in chapter four.

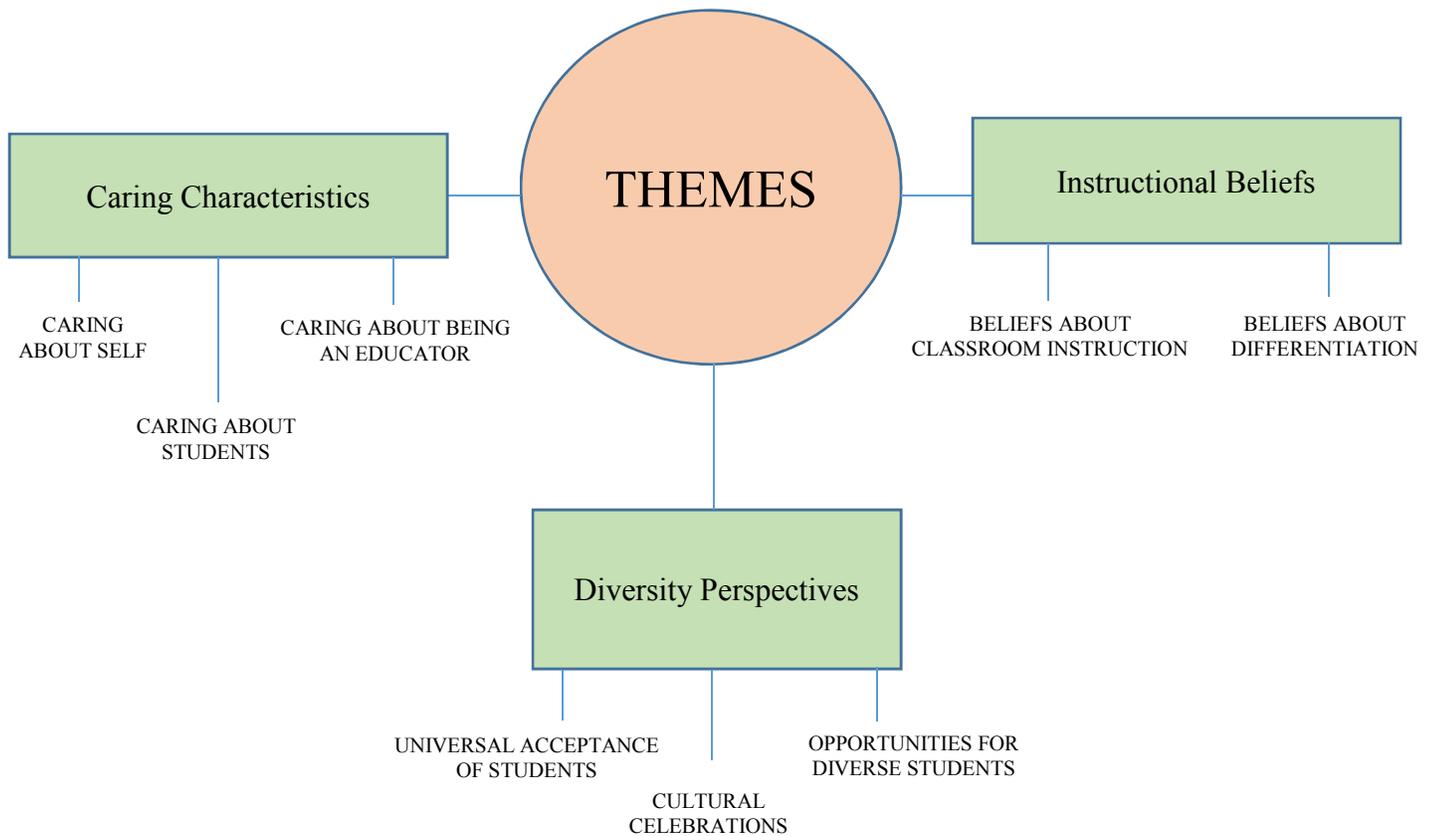


Figure 8. Themes and subthemes that emerged from the two focus group interviews

Delimitations

The delimitations for the study included the time of the study, which was within the range of the Fall 2018 semester, August through November. The research was conducted on the campus of a regional four-year university in South Texas. Additionally, the study was delimited to only Teacher Candidates working toward a teaching certification who had been enrolled in field-based experience or clinical teaching. Furthermore, the study was only comprised of Teacher Candidates who were born in 1995 or later. The study included all participants who matched the criteria, regardless of race, gender, or ethnicity; however, race, gender, and ethnicity were recorded for descriptive purposes only.

Assumptions

It is assumed that the quantitative and qualitative data represent truthful opinions. Likewise, the sample studied was representative of the total population of Teacher Candidates enrolled at a regional four-year university in South Texas for the Fall 2018 semester. Moreover, it was assumed that the researcher remained objective and neutral during both the quantitative and qualitative portions of the study.

Feasibility

The feasibility for the study was reasonable. Universities do possess Teacher Candidates that can take part in a survey. The researcher recruited a realistic sample size for both the quantitative and qualitative phases. The Fall semester began in the month of August, and the researcher had the opportunity to present the surveys to Teacher Candidates and collect them within a reasonable amount of time. Once the quantitative data was analyzed, the researcher led the two focus group interviews. The researcher interviewed both focus groups in the Fall semester of 2018. There was feasibility of resources that were collected and analyzed for both quantitative and qualitative data.

Ethical Considerations

The researcher obtained Institutional Review Board (IRB) consent before any research began. All participants understood they were volunteers and they did not receive any compensation for participating in either the surveys or focus group interviews. The researcher provided informed consent, ensuring that the human subjects were protected. Consent was obtained prior to the administration of the surveys and reviewed again before agreeing to participate in one of the two focus group interviews. Approximately 11 of the 16 participants were students in one of the researcher's classes. Participants were ensured that their grades

would not be affected in any way. Furthermore, the researcher confirmed that all information provided would be kept confidential and explained that because there were identifiable values, such as birth year, gender, race, and ethnicity, the study did not fall under the anonymous category. It was ensured that the data collected would be kept in a secured environment, made only available to the researcher and the dissertation committee. All participants were assigned pseudonyms.

All data, consent forms, IRB forms, recruitment materials, transcripts, and surveys will be retained for three years after the completion of the study. Files will be kept in a locked file cabinet at the researcher's home with no identifiable information and will be destroyed by shredder after three years, per IRB guidelines. Digital files, such as transcripts, are stored on a password-protected external hard drive that is kept locked in a storage file cabinet at the researcher's home. These digital files will also be erased after three years.

Trustworthiness and Rigor

Multiple data sources were employed in this study. The data sources for this explanatory sequential mixed model inquiry included two surveys, demographic information, and two focus group interviews. The data collected reflected the outcomes based on the research questions. The two focus group interviews allowed participants the freedom to openly engage in discourse. Data was coded using descriptive methods. The researcher fully engaged in triangulation in order to look at the data from different angles to probe further into the research. Additionally, the researcher engaged in peer review and met regularly with the dissertation committee to ensure quality and rigor of the study was apparent.

Member checks were conducted to follow up on experiences and to answer questions based on the codes generated during the focus group interviews. Both the codes and the

transcripts were shared with participants to get feedback. However, only one interview participant provided feedback.

CHAPTER IV: FINDINGS

The purposes of this explanatory sequential mixed methods inquiry were to determine and describe the general self-efficacy and the teacher sense of efficacy of Generation Z Teacher Candidates and how they view their role in education as first-time teachers. An explanatory sequential mixed methods model was utilized, meaning the methods were implemented sequentially, starting with quantitative data collection and analysis in Phase 1, followed by qualitative data collection and analysis in Phase 2. The purpose of the design was the need to explain quantitative results (Creswell, 2003). The collected qualitative data was coded into categories to extract themes based on the research questions.

Quantitative and qualitative data were collected and analyzed to answer the research questions. The raw quantitative data were obtained using two surveys, which were administered by the researcher: a general self-efficacy survey and a teacher sense of efficacy survey. The participants who completed the surveys were undergraduate students enrolled in the teacher education program during the Fall 2018 semester, both field-based students and clinical teachers. The field-based students are students who are seeking teacher certification. They are assigned to school classrooms two days per week in the semester prior to clinical teaching. Clinical teachers are placed in school classrooms five days per week and are also working toward teacher certification.

The data was coded from the general self-efficacy survey and the teacher sense of efficacy survey received from both orientation meetings, entered into a computer, and analyzed using the Statistical Package for the Social Sciences (SPSS). The researcher collected the qualitative data by conducting two focus group interviews with Generation Z Teacher Candidates

from a regional four-year university in South Texas. The interviews were audio-taped, transcribed, and analyzed by the researcher.

Quantitative Results

For the purposes of this study, the quantitative data precedes the qualitative data. The quantitative data was used to answer two research questions: What is the general self-efficacy of Generation Z Teacher Candidates; and What is the teacher sense of efficacy of Generation Z Teacher Candidates? The second purpose of the quantitative component was to generate a focus group interview protocol. Additionally, the researcher field-based students' quantitative data and clinical teachers' quantitative data separate in an effort to show distinct differences and/or similarities in general self-efficacy and teacher sense of efficacy.

A Profile of the Respondents

The field-based teachers and the clinical teachers represented different demographics; therefore, the researcher found it helpful to separate the data into the two groups, rather than joining the two entities.

Field-based students. Field-based students are students who are placed in schools two days per week, and the course is completed the semester before they enter clinical teaching. Additionally, the study participants were teacher candidates enrolled in a teacher education preparation program at a regional four-year university in South Texas at the time of the study and voluntarily agreed to participate. Upon analyzing the data, there was a total of 70 field-based teacher candidates who began the survey. However, the number of participants dropped to 42 because of the requirement of having been born in or after 1995. Additionally, 14 field-based students stopped the survey at the start of the second survey, meaning 28 field-based students completed both surveys.

These participants were comprised mainly of females, making up 85.7%. The majority of the sample was Hispanic at 61.9%. The teaching certification most respondents were seeking was an Early Childhood (EC) – 6th Grade certification. The number of hours spent weekly on a computer, laptop, and/or mobile device averaged between 25-35 hours a week. These numbers indicate that these participants averaged approximately four and a half hours per day on a mobile device. Eight respondents reported that they have other sources of income. The field-based respondents’ demographics are summarized in Table 2.

Table 2

Profile of Field-Based Respondents, Categorical Variables (n = 42)

Variable	n	%
Gender		
Female	36	85.70
Male	6	14.30
Ethnicity		
Hispanic	26	61.90
White, Non-Hispanic or Latino	12	28.60
Black or African-American	3	7.10
American Indian or Alaska Native	1	2.40

Teaching Certification

Early Childhood (EC) – 6 th Grade	10	23.80
Early Childhood (EC) – 6 th Grade STEM or Reading	5	11.90
Early Childhood (EC) – 6 th Grade Bilingual	5	11.90
Theatre – EC-12 th Grade	5	11.90
Mathematics Grades 4-8	4	9.50
Physical Education – EC-12 th Grade	4	9.50
Music – EC-12 th Grade	2	4.80
Special Education – EC-12 th Grade	2	4.80
English Language Arts Grades 4-8	1	2.40
Science Grades 4-8	1	2.40
All Areas Grades 7-12	1	2.40
Mathematics Grades 7-12	1	2.40
Social Studies Grades 7-12	1	2.40

Total number of hours per week spent on a computer, laptop, and/or mobile device

15-25 Hours	12	28.60
25-35 Hours	14	33.30
35-45 Hours	9	21.40
45-55 Hours	3	7.10
55-65 Hours	1	2.40
65 + Hours	3	7.10

Do you currently have other sources of income deriving from any side businesses?

Yes	8	19.00
No	34	81.00

Clinical teachers. Clinical teachers are placed in schools every day of the week, and it is their last semester before graduation. Additionally, the study participants were teacher candidates enrolled in the teacher education preparation program at a regional four-year university in South Texas at the time of the study and voluntarily agreed to participate. Upon analyzing the data, 45 clinical teachers began the survey. However, the number of participants dropped to 17 because of the requirement of having been born in or after 1995. Additionally, it should be noted that three of the 17 clinical teachers stopped the survey at the start of the second survey, meaning that 14 clinical teachers completed both surveys.

Eighty-eight percent of clinical teachers surveyed were females, while 12% were males. This group of respondents were predominately White respondents, 24%. Eleven percent identified as Hispanic. Forty-one percent were seeking an Early Childhood (EC) – 6th Grade certification. About 12% were seeking a STEM (Science, Technology, Engineering, and Mathematics) Certification or Special Education Certification. Almost half of the clinical teachers spend 15-25 hours per week on a computer, laptop, and/or mobile device. Furthermore, 11% have income deriving from side businesses. The clinical teachers' demographics are summarized in Table 3.

Table 3

Profile of Clinical Teachers, Categorical Variables (n = 17)

Variable	N	%
Gender		
Female	15	88.20
Male	2	11.80
Ethnicity		
White	11	64.70
Hispanic	5	29.40
Black or African-American	1	5.90
Teaching Certification		
Early Childhood (EC) – 6 th Grade	7	41.20
Early Childhood (EC) – 6 th Grade STEM or Reading	2	11.80
Special Education EC-12 th Grade	2	11.80
Early Childhood (EC) – 6 th Grade Bilingual	1	5.90
English Language Arts Grades 7-12	1	5.90
Social Studies Grades 7-12	1	5.90
Generalist Grades 4-8	1	5.90
Physical Education EC-12 th Grade	1	5.90
Art EC-12 th Grade	1	5.90

Total number of hours per week spent on a computer, laptop, and/or mobile device

15-25 Hours	8	47.10
25-35 Hours	2	11.80
35-45 Hours	4	23.50
45-55 Hours	3	17.60

Do you currently have other sources of income deriving from any side businesses?

Yes	5	29.40
No	12	70.60

General Self-Efficacy

Results of Field-Based Teachers

The survey presented to the field-based students consisted of ten questions. The purpose of the survey was to assess a general sense of perceived self-efficacy to predict coping with daily struggles, as well as adaptation after experiencing a variety of stressful life events (Schwarzer & Jerusalem (1995). A copy of the survey is provided as Appendix A.

The General Self-Efficacy survey was self-administered on a mobile device and was part of a more comprehensive survey. Responses were made on a 4-point Likert scale. In order to calculate the results, the responses to all ten items were summed to yield the final composite score with a range from 10 to 40. The higher the number, the higher self-efficacy the individual possessed. Likewise, the lower the number, the lower self-efficacy the individual possessed.

The number of respondents for the survey were 39. Forty-two respondents originally began the survey; however, three respondents exited the survey after having only completed the initial demographic information. Thus, this left the sample size at 39 field-based students.

The results from the ten-question survey were ranked and placed in order from the highest mean (3.46) to lowest mean (2.77). Nine of the ten questions ranked in the “moderately true” range, while only one question ranged in the “hardly true” range. The overall sum for all ten questions combined is 31.54 out of 40, with an overall mean of 3.15. With an overall sum of 31.54, the respondents possessed a moderately high self-efficacy. The only question that showed some uncertainty was the response with the “hardly true” mean of 2.77: *If someone opposes me, I can find the means and ways to get what I want*. There were two questions that represented the highest mean of 3.46: *I can solve most problems if I invest the necessary effort*; and *It is easy for me to stick to my aims and accomplish my goals*.

Despite there not being a question that generated a mean of a 4.00, the data suggested field-based students possess a moderately high general self-efficacy.

Table 4 offers a visual representation of the survey data collected from the 39 field-based students, ranked from the highest mean to the lowest mean.

Table 4

The Ranking of the General Self-Efficacy Statements of Field Based Students (n=39)

Self-Efficacy Statement	*Mean	Std. Deviation
I can solve most problems if I invest the necessary effort.	3.46	.555
It is easy for me to stick to my aims and accomplish my goals.	3.46	.600
I can always manage to solve difficult problems when I try hard enough.	3.31	.468
If I am in trouble, I can usually think of a solution.	3.21	.522
I am confident that I could deal efficiently with unexpected events.	3.15	.587
Thanks to my resourcefulness, I know how to handle unforeseen situations.	3.13	.656
When I am confronted with a problem, I can usually find several solutions.	3.05	.686
I can remain calm when facing difficulties because I can rely on my coping abilities.	3.00	.795
I can usually handle whatever comes my way.	3.00	.595
If someone opposes me, I can find the means and ways to get what I want.	2.77	.777

Note. *4=Exactly True, 3=Moderately True, 2=Hardly True, 1=Not at all True.

Results of Clinical Teachers

The survey presented to the clinical teachers was identical to the one presented to the field-based students. The survey consisted of ten questions. The purpose of the ten-question survey was to assess a general sense of perceived self-efficacy to predict coping with daily

struggles, as well as adaptation after experiencing a variety of stressful life events (Schwarzer & Jerusalem (1995). A copy of the survey is included as Appendix A. The survey was self-administered on a mobile device and was part of a more comprehensive survey. Responses were made on a 4-point Likert scale. In order to calculate the results, the responses to all ten items were added to yield the final composite score with a range from 10 to 40. The higher the number, the higher self-efficacy the individual possessed. Likewise, the lower the number, the lower self-efficacy the individual possessed.

The number of clinical teacher respondents who completed the self-efficacy survey were 16. There were 17 clinical teachers who completed the demographic information. However, one respondent exited the survey, thus the sample size was reduced to 16 clinical teacher respondents.

The results from the ten-question survey were also ranked and placed from highest mean (3.31) to lowest mean (2.81). Eight questions ranked in the “moderately true” range, while two questions ranked in the “hardly true” range. The overall sum for all ten questions combined was 30.81 out of 40, with an overall mean of 3.08. With an overall sum of 30.81, the respondents also possessed a moderately high self-efficacy, slightly lower than the field-based students. These respondents had two questions that showed some uncertainty: *Thanks to my resourcefulness, I know how to handle unforeseen circumstances* (2.88) and *If someone opposes me, I can find the means to get what I want* (2.81), which was also a question that represented a similar score when compared to the field-based students (2.77). The two questions with the highest means (3.31) were also representative of the two highest means for the field-based students: *I can solve most problems if I invest the necessary effort* (3.31) and *It is easy for me to stick to my aims and accomplish my goals* (3.31). Though the clinical teachers’ mean is slightly lower than the field-

based students' mean (3.46), these two questions for both groups' respondents yielded the highest means.

Again, despite there not being a question that generated a mean of a 4.00, the data suggested clinical teachers had a moderately high general self-efficacy (30.81), slightly lower than that of the field-based students (31.54).

Table 5 offers a visual representation of the survey data collected from the sixteen clinical teachers, ranked from the highest mean to the lowest mean.

Table 5

The Ranking of the General Self-Efficacy Statements of Clinical Teachers (n=17)

Self-Efficacy Statement	*Mean	Std. Deviation
I can solve most problems if I invest the necessary effort.	3.31	.479
It is easy for me to stick to my aims and accomplish my goals.	3.31	.479
I can always manage to solve difficult problems when I try hard enough.	3.25	.447
I can usually handle whatever comes my way.	3.13	.500
If I am in trouble, I can usually think of a solution.	3.06	.250
I can remain calm when facing difficulties because I can rely on my coping abilities.	3.06	.574
I am confident that could deal efficiently with unexpected events.	3.00	.365
When I am confronted with a problem, I can usually find several solutions.	3.00	.365
Thanks to my resourcefulness, I know how to handle unforeseen situations.	2.88	.342
If someone opposes me, I can find the means and ways to get what I want.	2.81	.544

Note. *4=Exactly True, 3=Moderately True, 2=Hardly True, 1=Not at all True.

Teacher Sense of Efficacy

Results of Field-Based Students

The teacher sense of efficacy survey presented to the field-based students consisted of 24 questions. The purpose of the survey was to measure three correlated factors that have been consistently found in teachers' efficacy: student engagement, instructional practices, and classroom management (Tschannen-Moran & Woolfolk-Hoy, 2001). The survey was designed to determine what creates the most difficulties for teachers in daily school activities. The survey was self-administered on a mobile device and was part of the general self-efficacy survey. Additionally, the survey required the participant to answer on a scale from 1 (nothing) to 9 (a great deal.).

The number of respondents who completed the general self-efficacy survey was 39. However, 11 respondents exited the survey at the start of the teacher sense of efficacy survey, thus decreasing the sample size to 28 field-based students.

Efficacy in student engagement results. The survey contained eight questions that dealt with student engagement: item #s 1, 2, 4, 6, 9, 12, 14, and 22. A copy of the survey is located in Appendix B. Table 6 offers a breakdown of the questions, ranked from highest mean to lowest mean.

Table 6

The Ranking of the Student Engagement Statements of Field-Based Students, Highest to Lowest (n=28)

Item #	Teacher Sense of Efficacy Regarding Student Engagement	*Mean	Std. Deviation
4.	How much can you do to motivate students who show low interest in schoolwork?	7.39	1.912
2.	How much can you do to help your students think critically?	7.28	1.901
12.	How much can you do to foster student creativity?	7.25	1.898
9.	How much can you do to help your students value learning?	7.07	1.864
6.	How much can you do to get students believe they can do well in school work?	6.93	1.804
14.	How much can you do to improve the understanding of a student who is failing?	6.93	1.654
1.	How much can you do to get thought to the most difficult students?	6.85	1.687
22.	How much can you assist families in helping their children do well in school?	6.71	1.697

Note. The overall mean for student engagement of field-based students is 7.05.

Question number four ranked the highest with a mean of 7.39. The data suggested that field-based students perceive they are capable of motivating students who show low interest in schoolwork. Furthermore, the second question also exceeds the overall mean for student

engagement: *How much can you do to help your students think critically?* The mean for this question was 7.28, thus exceeding the overall mean by 0.23. The data alluded to the idea that field-based students recognize they have what it takes to help students in their classrooms think critically. The remainder of the questions in this category did not have as much of a significant difference as did the first two questions. The question with the most uncertainty regarding student engagement was 22: *How much can you assist families in helping their children do well in school?* The mean was 6.71, the lowest in the category. Overall, student engagement ranked first in the teacher sense of efficacy scales for field-based students with a combined mean of 7.05.

Efficacy in instructional practices results. The survey contained eight questions that addressed instructional practices: #s 7, 10, 11, 17, 18, 20, 23, 24. A copy of the survey is located in Appendix B. Table 7 is a visual representation of the breakdown of questions, ranked from highest mean to lowest mean.

Table 7

The Ranking of the Instructional Practices Statements of Field-Based Students, Highest to Lowest (n=28)

Item #	Teacher Sense of Efficacy Regarding Instructional Practice	*Mean	Std. Deviation
10.	How much can you gauge student comprehension of what you have taught?	7.00	1.764
18.	How much can you use a variety of assessments?	7.00	1.700
20.	To what extent can you provide an alternative explanation or example when students are confused?	7.00	1.764
24.	How well can you provide appropriate challenges for very capable students?	7.00	1.721
11.	To what extent can you craft good questions for your students?	6.75	2.030
7.	How well can you respond to difficult questions from your students?	6.71	1.718
23.	How well can you implement alternative strategies in your classroom?	6.71	1.652
17.	How much can you do to adjust your lessons to the proper level for individual students?	6.68	1.786

Note. The overall mean for instructional practices of field-based students is 6.86.

There was not a large discrepancy with the data in this category. The mean ranges from 7.00 to 6.71, leaving only a difference of 0.29. Half of the eight responses had a mean of 7.0. The numbers suggest that the majority of field-based students had the same beliefs regarding

instructional practices. The questions with the lowest means (#s 7, 23, & 17) indicate that field-based students felt they may lack appropriate instructional practices for differentiating instruction. Instructional practices ranked second in the teacher sense of efficacy scales for field-based students, with a combined mean of 6.86.

Efficacy in classroom management results. The survey contained eight questions that addressed classroom management: #s 3, 5, 8, 13, 15, 16, 19, 21. A copy of the survey is located in Appendix B. Table 8 is a visual representation of the breakdown of questions, ranked from highest mean to lowest mean.

Table 8

The Ranking of Classroom Management Statements of Field-Based Students, Highest to Lowest (n=28)

Item #	Teacher Sense of Efficacy Regarding Class Management	*Mean	Std. Deviation
5.	To what extent can you make your expectations clear about student behavior?	7.39	1.889
13.	How much can you do to get children to follow classroom rules?	7.04	1.774
8.	How well can you establish routines to keep activities running smoothly?	6.89	1.873
3.	How much can you do to control disruptive behavior in the classroom?	6.71	1.843
16.	How well can you establish a classroom management system with each group of students?	6.71	1.823
19.	How well can you keep a few problem students from ruining an entire lesson?	6.71	1.630
21.	How well can you respond to defiant students?	6.71	1.697
15.	How much can you do to calm a student who is disruptive or noisy?	6.57	1.709

Note. The overall mean for classroom management of field-based students is 6.84.

This category positioned itself last in terms of the ranking of the three categories. Additionally, the data in this category exposed the lowest mean score in the entire survey. The question was *How much you can do to calm a student who is disruptive or noisy?* The mean for

this question was 6.57, consequently the lowest teacher sense of efficacy question for field-based students. Furthermore, this category embodied the most means below 7.0.

Question five, *To what extent can you make your expectations clear about student behavior?*, had the highest mean of 7.39, indicating field-based students' perception of ability to establish clear boundaries and consequences regarding student behavior. Despite this high mean, the category of classroom management ranked last for the entire survey.

Results of Clinical Teachers

The teacher sense of efficacy survey presented to the clinical teachers was identical to the one presented to field-based students. The purpose of the 24-question survey was to measure three correlated factors that have been consistently associated with teachers' efficacy: student engagement, instructional practices, and classroom management (Tschannen-Moran & Woolfolk-Hoy, 2001). The survey was designed to find out what creates the most difficulties for teachers during daily school activities. The survey was self-administered on a mobile device and was part of the general self-efficacy survey. Additionally, the survey required the reader to answer on a scale from 1 (nothing) to 9 (a great deal).

The number of respondents that completed the general self-efficacy survey was 16. Two of the respondents, however, exited the survey at the start of the teacher sense of efficacy survey, thus reducing the sample size to 14 clinical teachers.

Efficacy in student engagement results. The survey contained eight questions that pertained to student engagement: #s 1, 2, 4, 6, 9, 12, 14, and 22. A copy of the survey is located in Appendix B. Table 9 is a visual representation of the breakdown of questions, ranked from highest mean to lowest mean.

Table 9

*The Ranking of the Student Engagements Statements of Clinical Teachers - Highest to Lowest
(n=14)*

Item #	Teacher Sense of Efficacy Regarding Student Engagement	*Mean	Std. Deviation
9.	How much can you do to help your students value learning?	8.00	1.359
4.	How much can you do to motivate students who show low interest in schoolwork?	7.71	1.490
12.	How much can you do to foster student creativity?	7.71	1.858
6.	How much can you do to get students believe they can do well in school work?	7.64	1.336
14.	How much can you do to improve the understanding of a student who is failing?	7.50	1.605
22.	How much can you do to assist families in helping their children do well in school?	7.36	2.134
1.	How much can you do to get through the most difficult students?	7.35	1.993
2.	How much can you do to help your students think critically?	7.28	1.164

Note. The overall mean for student engagement of clinical teachers is 7.56.

Question nine overshadowed all other questions in this category with a mean of 8.00, which was also greater than the field-based students' mean (7.07). This data indicated that clinical teachers think they had what it takes to help students value learning. Furthermore,

question two was ranked last in this category with a mean of 7.28. This number matched the exact mean as the field-based students. However, the question was ranked at the top of the category for field-based students while it was ranked last for clinical teachers. With an overall mean of 7.56 for student engagement, the data tied for second place in student engagement for clinical teachers, while it ranked first for field-based students.

Efficacy in instructional practices results. The survey contained eight questions that addressed instructional practices: #s 7, 10, 11, 17, 18, 20, 23, 24. A copy of the survey is located in Appendix B. Table 10 is a visual representation of the breakdown of questions, ranked from highest mean to lowest mean.

Table 10

*The Ranking of the Instruction Practices Statements of Clinical Teachers - Highest to Lowest
(n=14)*

Item #	Teacher Sense of Efficacy Regarding Instructional Practice	*Mean	Std. Deviation
20.	To what extent can you provide an alternative explanation or example when students are confused?	7.93	1.207
23.	How well can you implement alternative strategies in your classroom?	7.93	1.439
10.	How much can you gauge student comprehension of what you have taught?	7.93	1.207
18.	How much can you use a variety of assessment strategies?	7.86	1.703
24.	How well can you provide appropriate challenges for very capable students?	7.71	1.684
11.	To what extent can you craft good questions for your students?	7.64	1.550
7.	How well can you respond to difficult questions from your students?	7.57	1.399
17.	How much can you adjust your lessons to the proper level for individual students?	7.50	1.743

Note. The overall mean for instructional practices of clinical teachers is 7.75.

Similarly to that of field-based students' responses to instructional practices, there was not a large difference found in the data for this category for clinical teachers. The means ranged from 7.93 to 7.50, leaving a difference of 0.43. All of the responses were relatively close in

range, implying that clinical teachers had similar beliefs regarding instructional practices.

However, the difference in the means between field-based students and clinical teachers was 0.89, indicating that clinical teachers possessed a higher teacher sense of efficacy in instructional practices. This category, instructional practices, ranked first for clinical teachers with a combined mean of 7.75.

Efficacy in classroom management results. The survey contained eight questions that addressed classroom management: #s 3, 5, 8, 13, 15, 16, 19, 21. A copy of the survey is located in Appendix B. Table 11 is a visual representation of the breakdown of questions, ranked from highest mean to lowest mean.

Table 11

The Ranking of the Classroom Management Statements of Clinical Teachers - Highest to Lowest (n=14)

Item #	Teacher Sense of Efficacy Regarding Class Management	*Mean	Std. Deviation
8.	How well can you establish routines to keep activities running smoothly?	7.86	1.512
16.	How well can you establish a classroom management system with each group of students?	7.71	1.490
19.	How well can you keep a few problem students from ruining an entire lesson?	7.71	1.383
5.	To what extent can you make your expectations clear about student behavior?	7.57	1.615
21.	How well can you respond to defiant students?	7.57	1.604
3.	How much can you do to control disruptive behavior in the classroom?	7.50	1.345
13.	How much can you do to get children to follow classroom rules?	7.43	1.604
15.	How much can you do to calm a student who is disruptive or noisy?	7.14	1.875

Note. The overall mean for classroom management of clinical teachers is 7.56.

This category, classroom management, tied with the student engagement category. Question eight had the highest mean of 7.86, indicating that clinical teachers felt they can establish routines and keep activities running smoothly. However, the question with the lowest

mean for the entire survey of the clinical teachers came from this category, #15: *How much can you do to calm a student who is disruptive or noisy?* The mean for the question was 7.14, the lowest of all the questions presented to clinical teachers. With a combined mean score of 7.56 for classroom management, clinical teachers perceived they had a grasp on classroom management.

Summary of Quantitative Results

The two surveys administered to field-based students and clinical teachers showed similar results. Field-based teachers had an overall general self-efficacy mean of 3.15, while clinical teachers had an overall general self-efficacy mean of 3.08, thus yielding a slightly higher sense of general self-efficacy for field-based students. When combined, both groups make up an overall mean of 3.12. It can be concluded that field-based students and clinical teachers have a moderately high level of general self-efficacy. The statement with the highest level of general self-efficacy was representative for both groups: *I can solve most problems if I invest the necessary effort.* The statement with the lowest level of general self-efficacy also represented the lowest score for both groups: *If someone opposes me, I can find the means and ways to get what I want.*

The Teacher Sense of Efficacy Survey (TSES) results were also similar for both field-based students and clinical teachers. The survey measured three areas: student engagement, instructional practices, and classroom management. The data showed that field-based students and clinical teachers believed they possess characteristics and abilities to run an effective classroom and become a successful teacher.

Qualitative Results

To explore research questions three and four for this sequential explanatory mixed methods research design, the researcher conducted two focus group interviews. These two focus

group interviews represented a sample of the population, consisting of both field-based students and clinical teachers from a regional four-year university in South Texas. A focus group interview is a research method where a group of people are selected and asked about their opinion or perceptions about a particular topic (Creswell, 2003). The environment is interactive, wherein the participants are free to talk with one another (Saldaña, 2011). Focus group interviews have become popular on college campuses as a qualitative research method and have emerged in educational research to explore participants' attitudes, perceptions, experiences, and beliefs. The research often supplements other data collections, such as survey questionnaires, interviews, and artifacts. (Morgan, 1997).

The focus group interview participants were asked questions related to their general self-efficacy and teacher sense of efficacy. By drawing from the transcripts of these focus group interviews, the descriptive quality of the study was heightened and revealed the viewpoints of Generation Z Teacher Candidates, similar to that of the surveys. Saldaña (2011) remarked on the benefits of utilizing data sources which, allows for a "greater spectrum" of understanding and dimension (p. 76).

Open-ended questions were posed to elicit a personal narrative. The two research questions addressed were:

- Based on the general self-efficacy of Generation Z Teacher Candidates, how do they view their role as first-time educators, regarding students, colleagues, and the teaching profession?
- What are the perspectives of Generation Z Teacher Candidates on the importance of self-efficacy as it relates to their ability to adjust from being a student to teacher?

Participant Descriptions

Participants for the qualitative portion of the study consisted of Teacher Candidates, both field-based students and clinical teachers, at a regional four-year university in South Texas. A total of 16 participants volunteered to participate. The researcher split the sixteen participants into two groups. Therefore, each focus group interview consisted of eight participants: seven field-based students and one clinical teacher.

The 16 participants also participated in Phase 1 of the study, a survey conducted during the orientation meetings at the beginning of the Fall 2018 semester. The researcher conducted both focus group interviews during the Fall 2018 semester. Each interview was approximately forty-five minutes in length.

Data Analysis

The data collected in the qualitative phase of the study led to the development of three major themes:

- Caring Characteristics of Generation Z Teacher Candidates
- Generation Z Teacher Candidates' Beliefs Regarding Instruction
- Diversity as Perceived by Generation Z Teacher Candidates

These themes were elicited by common categories among the two focus group interviews. They represent perspectives of a small sample size of the Generation Z population. Each theme was presented as a descriptive trait with its own set of subthemes and commonalities. The focus group interview participants shared their beliefs and current experiences. Figure 9 provides a visual of the main themes and subthemes that emerged from the qualitative data.

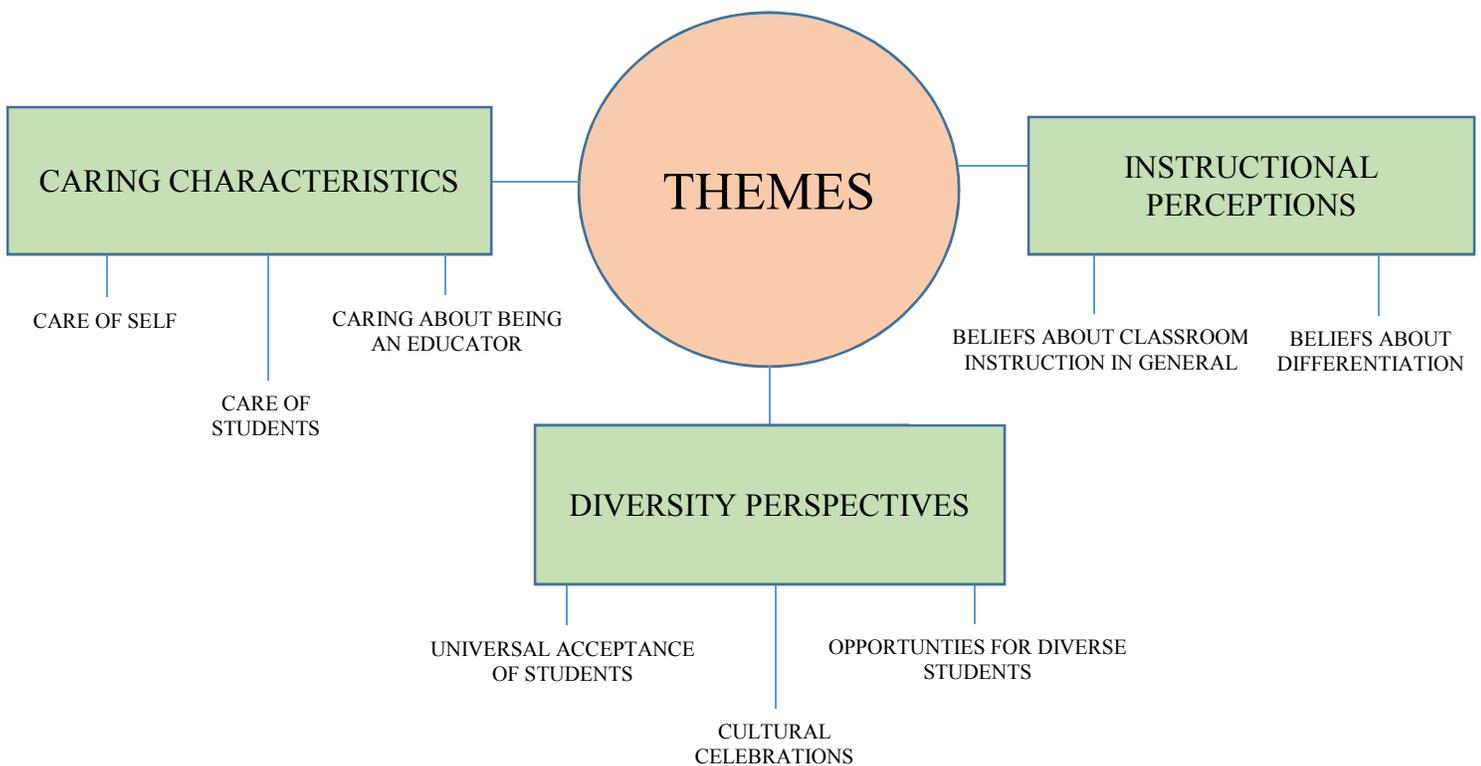


Figure 9. Focus groups’ themes and subthemes.

Caring Characteristics of Generation Z Teacher Candidates

All sixteen participants from the two focus group interviews discussed how caring was a vital characteristic for teachers to possess. There were three categories related to this theme: Self-care of Generation Z Teacher Candidates; Generation Z Teacher Candidates care about students; and Generation Z Teacher Candidates care about being an educator. Figure 10 offers a visual of the first theme that emerged from the two focus group interviews.

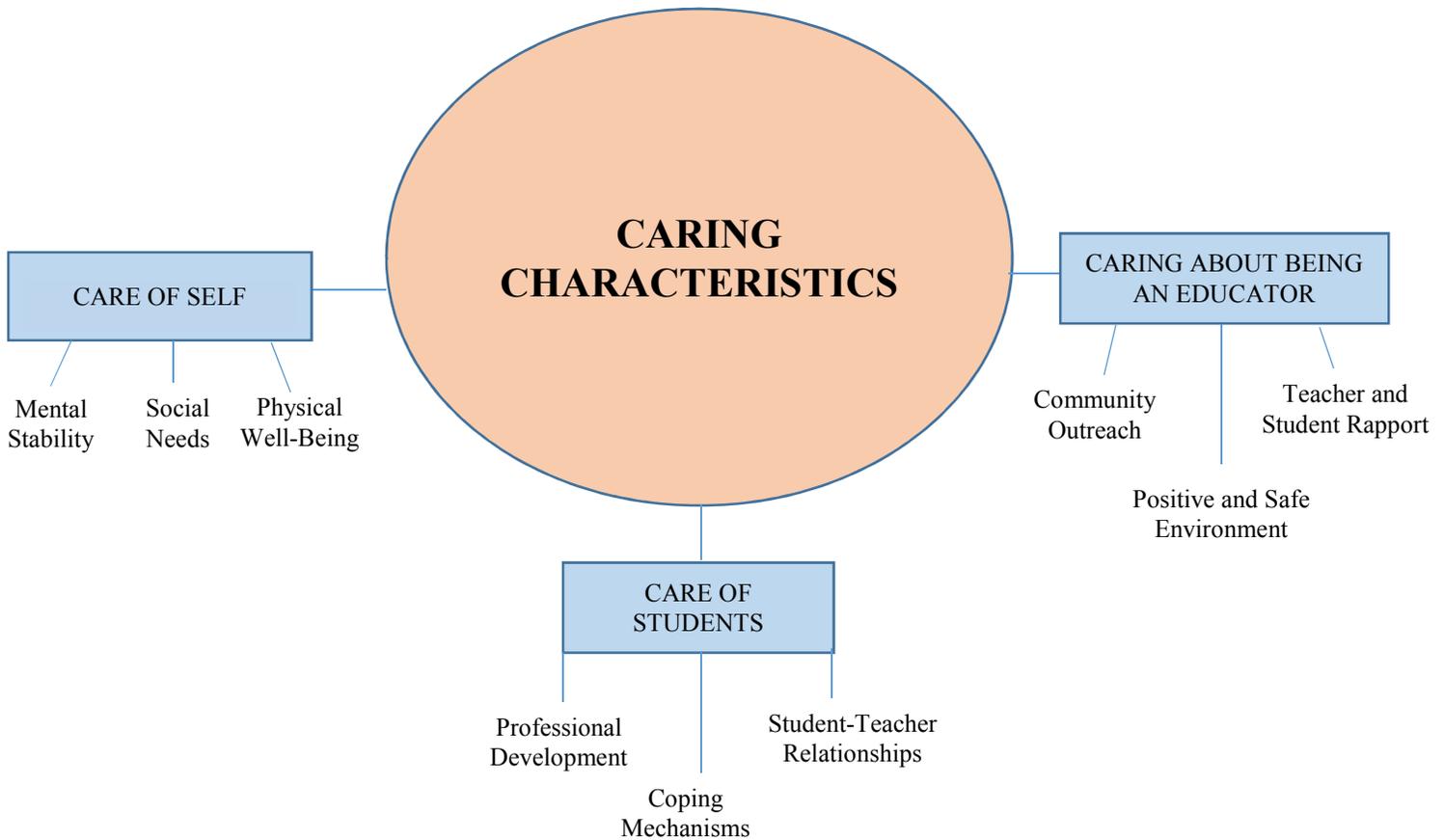


Figure 10. Theme 1 and subthemes.

Care of self. Generation Z Teacher Candidates were cognizant of the importance of self-care. They acknowledged that educators’ care of their mental health, social needs, and physical well-being were necessary traits to possess.

Mental health was discussed at length. When the researcher posed the question that asked the participants to explain the kinds of resources available to them in their personal life that would help assist them in difficult situations, they reflected on self-care. Danielle, a field-based student in focus group 1 responded by stating, “I depend on therapy a great deal. I mean, there’s no shame in that. They’re always there to help you in guidance and stuff like that.” Therapy was an outlet for her to release her anxiety from the stresses of life. Allie, a field-based student from

focus group 2, shared that she relied on visiting with a counselor twice a month and how the visits helped her cope with the stresses that comes with life, work, and school.

Another topic discussed was their social needs. One participant from focus group 1, Tony, recommended keeping school and life separate:

You should keep your own social life and your school life apart from the school, where like you don't grade, or you don't worry about the worries of the school and the kids.

Like you have to have your own hobbies and interests, as well.

Tony's response mirrored those of other participants who asserted that their social lives revolved around spending time with their families, roommates, friends, significant others, and pets. Sally, a field-based student from focus group 2, stressed the need to have her social needs met: "I believe that it is extremely important to have a life outside of school. So many teachers today spend all their time at school. I think we would become burned out really fast if we only had a school life." This suggested that having the ability to view school and life as two different entities were important to the participants.

Several participants participated in physical activities in order to support their self-care. These physical activities include Zumba™, playing video games, watching movies on television, and taking bubble baths. According to Courtney, a participant from focus group 1, participating in physical activities "helps get the brain flowing, and just helps take the stress away." Another participant referred to these physical activities as "outlets" for dealing with daily stresses.

Care of students. Generation Z Teacher Candidates care about students. They are empathic and compassionate about the students who will be in their classrooms. These teacher candidates believed that ongoing professional development is needed in order to understand students' mental capabilities and their impact on learning. They want to be able to help, comfort,

and guide students, rather than simply dismiss them from the classroom. As Courtney stated: “I believe teachers would rather take the kid who is misbehaving out of the classroom, rather than keeping him in the class and trying to understand what he’s going through, so he won’t miss out on learning. We feel for them more.” During the second focus group interview, Lexi had a similar response:

I just don’t understand how some teachers won’t connect with students. How do teachers not realize you’re talking to the same kid every single day in a belittling tone, and you continue to have the same problems, but you keep dismissing him from class or send him to the principal’s office? Whatever you’re doing is not working. The teacher has him the whole year. How can she not want to do more? I don’t get it.

After these responses, several participants assented that they would benefit from ongoing professional development in the area of how to work with students with mental health issues, as well as students who are known as “behavior kids”, as stated by five participants from both focus group interviews. Participants Isabel and Sally from focus group 2 acknowledged that they would “take the time to work with students, not against them.”

Participants also consented they would offer different coping mechanisms that would be valuable to students who struggle academically and emotionally. One participant, Zoey, indicated that students have “got to be kids, regardless of abilities or disabilities. We have to find out what works for every student.” Participants suggested engaging in extra recess, time alone for the student, brain breaks, participating in meaningful private conversations, having a cool down chair, having access to a stress ball, or offering opportunities for the student to write out their feelings. They all concurred that it was their responsibility to “be there for them, and not have them feel like they can’t talk to anybody.” The last action they would want to take is to

remove the student from the classroom. When the researcher asked if they were more willing to work with a defiant student instead of sending him or her to the office, the participants said “yes, with the right tools.”

The participants from both focus group interviews care about the student-teacher relationship. When the researcher offered a scenario in which the teacher was at fault for not allowing a student to use the restroom, which then ended with the student having an accident, the participants were all in agreement that this situation would not have occurred if they were the teacher. Instead, Amna, a field-based student from focus group 1, stated: “I feel like all of us probably would have let the kid go to the bathroom in the first place.” Tony reiterated this sentiment by saying: “We should all care for each other. We’re all here to be each other’s friend, be comfortable, and have a safe environment. Letting them use the restroom should not be a big deal.” However, if the scenario were to have occurred if they were the teacher, participants declared that they would have acknowledged their wrongdoing. Participant Allie from focus group 2 indicated that she “would have immediately apologized and accept[ed] fault; however, I don’t think that is our intention whatsoever. We care about our students. What’s the big deal about not letting them go to the bathroom?” The researcher assured the participants that what was offered was a scenario and that she was only seeking responses for the scenario.

Caring about being an educator. In addition to caring about students, Generation Z Teacher Candidates also care about being an educator, which included engaging in community outreach, creating a positive and safe environment, and having strong teacher and student rapport.

Participants agreed that reaching out and involving the community, including parents and other supporters of the school, was as integral part of what it means to be an educator. When the

researcher asked participants to explain ways in which they could assist families in helping their children, especially the parents who are not actively involved as other parents, the participants' responses were proactive. Lexi countered by stating she would "have that open communication with them. Let them know that as their teacher, I care about the well-being of the child and family." Another participant responded by saying she would make home visits or attend events to show support. Sally and Zoe, participants from focus group 2, spoke about starting a Facebook class page to encourage having open communication and sharing pictures and videos. They also suggested having a potluck lunch where parents could visit with the teacher and share studying strategies that could be implemented at home. Having a classroom open room/house was another way the participants would reach out to the community. They spoke about asking businesses for book donations in order to provide parents resources with which they could assist their child at home. Their overall goal was to ensure that everyone knows that "we care about what it means to be a teacher." Focus group 2 echoed similar sentiments by stating, "Yeah, just care about the kids and their families. It's as simple as that. Just reach out." All participants from both focus group interviews acknowledged that they would be willing to do whatever it took support the community and families.

Generation Z Teacher Candidates care about creating a positive and safe environment. When faced with situations that could possibly negatively impact students, such as making derogatory statements toward certain students, participants agreed that matters such as those would be handled immediately. Terry from focus group 1 stated that she would try to do role-playing. She would ask, "How do you think that made the other person feel? Would you want to feel that way?" Terry also claimed that she would rather address the whole class, rather than single out individuals because she felt "all students can learn from others and will remember it

before doing it again.” Tony, also from focus group 1, reiterated that he would have students pledge every morning that they would respect and care for one another. Lexi, a participant from focus group 2, understood that parents drop their children off every day thinking they will be safe and that teachers will protect them: “Parents place their child in my care for eight hours a day. You better believe I am going to do whatever it takes to make sure that child is safe.” Other participants echoed the same sentiments. Terry described how we now live in a world full of “hate, violence, and negative hostility.” School should be a place where children come to feel safe and loved. Courtney from focus group 1 vowed to make her environment “full of positive energy.”

Teacher and student rapport were another subtheme that participants viewed as significant. Lexi, a participant from focus group 2, acknowledge that she would be in close contact with the counselor to be able to “stay in the loop” regarding her students. She would want to know about issues her students may be facing, both personally and academically. Another participant, Sally, specified that students need to know “they have a voice and that whatever they’re facing does matter.” Both focus group interviewees displayed compassion for the current students they saw twice per week during their field-based courses and wish to be an advocate for them. Sally discussed how they [teacher candidates] will have students in their care for approximately 180 days, and it will be “vital for us to develop relationships with all of them.” Focus group 2 member, Rachel, summed it up by claiming: “I think all of us here deeply care about all students and hope to be a person they can come to when they need someone to talk to.”

Instructional Perceptions

Instruction is fundamental to the curriculum. It takes on many facets and possesses many different components. These components, according to Generation Z Teacher Candidates,

included relating instruction to the real world, engaging students, and having the ability to adapt and be flexible. Lacking these components could interfere with the learning process. Generation Z Teacher Candidates shared their perspectives about what “instruction” means to them. The participants related stories of how they currently view these components in the classroom versus how they plan to address them when they begin their teaching career. Figure 11 provides a visual of the theme and subthemes that transpired.

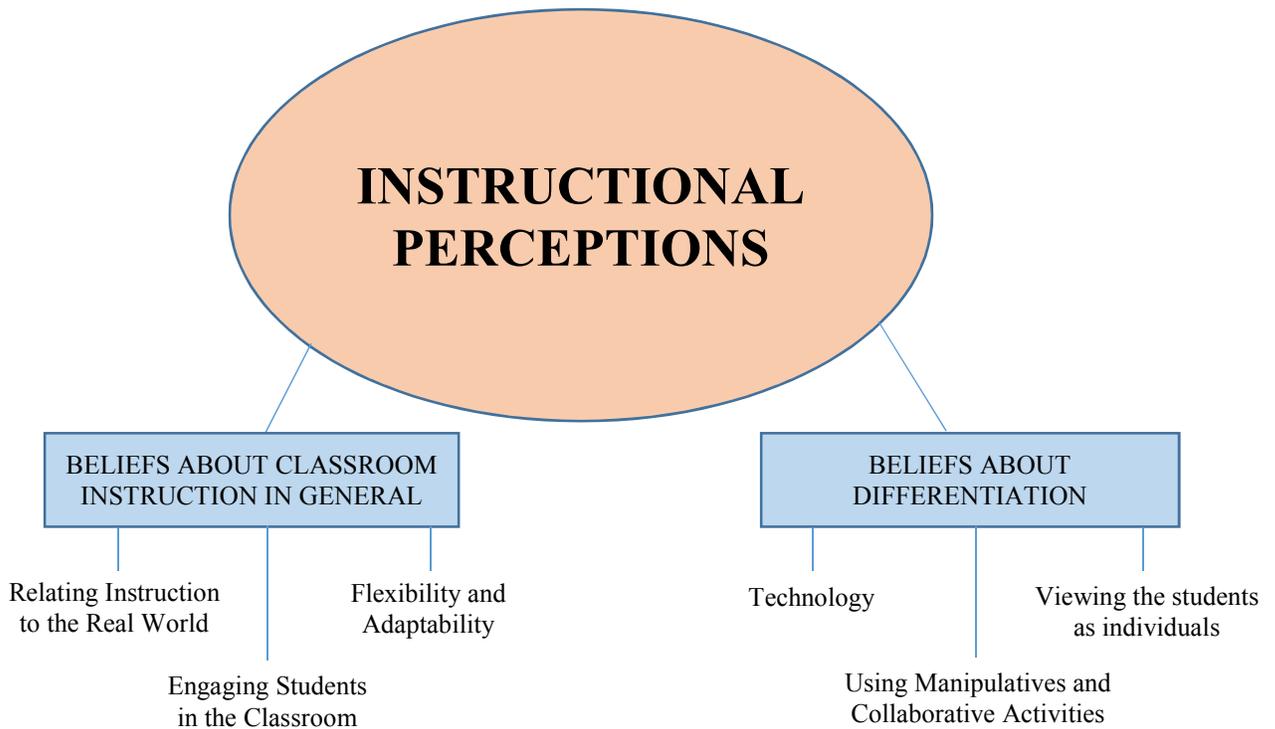


Figure 11. Theme 2 and subthemes.

Beliefs about classroom instruction in general. The discussion of relating instruction to the real world was a pattern that was repeated during both focus group interviews. When the researcher asked how participants planned to invite students to value learning in today’s learning space, Terry, a field-based student from focus group 1, stated that she would “connect it to the

real world, like giving examples of text-to-self or text-to-world.” She also mentioned how she currently sees her cooperating teacher relating instruction to the real world:

I see that students do not want to learn today because in one of my classrooms, the students do the same thing, worksheets. So, I feel like we are more likely to change things up, and I don’t think our older cooperating teachers are willing to do that, but I feel like we are.

The phrase “older cooperating teachers” resonated with other participants. Though the researcher was uncertain as to the age of the participants’ cooperating teachers, it did cause the researcher to wonder what age is considered “older.” When asked this same question during focus group 2, Julia, also a field-based student, responded by relating it to an experience she had when she was in elementary school:

Always relating it to the real world, or whenever you can...I feel that’s what made me care; I feel it worked because I was that kid in high school, and middle school, and every grade that always questioned why I had to do this or that. Why was it important? It wasn’t until college when it actually related to my life, or the real world that I actually started to care. I feel like educators need to do this when they’re doing their lessons. They need to take a step back and try to see how they can relate the material to their students’ lives. Perhaps to something the students enjoy, not just concentrating on teaching to the exams.

These two responses caused several affirmations from the other participants. All participants acknowledged that the key to meaningful instruction was to relate it to real world scenarios and emphasized how those scenarios have an impact in the real world. Furthermore, Lexi, the sole clinical teacher participant from focus group 1, confirmed this notion by asserting that teachers

not only need to be teaching the standards but also “teaching them [the students] values that they can go on to use later in life. I think that’s what’s most important.”

Participants in both focus groups were quite vocal when discussing student engagement and viewed it as an important component when implementing instruction. Participants agreed that tapping into students’ interests would provide engagement, and, in turn, students will want to learn. Four factors evolved from the discussions about student engagement: classroom management, opportunities for multiple points of view, asking higher order thinking (HOT) questions, and parental involvement.

Generation Z Teacher Candidates viewed classroom management as an important component to instruction. According to all the participants in both focus groups, without classroom management, content would be difficult to teach. Expectations need to be addressed and reinforced regularly, and most importantly, at the beginning of the school year. Tony acknowledged that his cooperating teacher had done a thorough job setting the rules, procedures, routines, and expectations at the beginning of the school year. Tony also believed this had helped to strengthen the learning that occurred in his cooperating teacher’s classroom because less time was spent on management issues, allowing more time for instruction.

Additionally, Generation Z Teacher Candidates believed instruction allows for students to express their opinions on different topics. By allowing youngsters to actively voice their point of view, lessons can be built on respect. Rachel, a field-based candidate from focus group 2, acknowledged that students bring with them their “own opinions, and just because it’s different from yours doesn’t negate the fact that you have to be mean or rude to them. Even if you disagree on something, you need to respect it.”

Asking higher order thinking (HOT) questions was also determined to be vital to instruction. Participants understood the value of how asking HOT questions allowed students to be critical thinkers, thus actively engaging them in the curriculum. When asked how they might entice students to think critically, several interviewees referred to the implementation of HOT questions. For example, Danielle, a field-based student from focus group 1, asserted that, in order to identify which students are participating or are actively engaged, a teacher could “ask hard questions, like higher order questions that we do in our lesson plans.” Presley, also a field-based student from focus group 1 added:

I think those higher-order questions are important because students can sit there and talk about whatever topic it is all day long, but if the students aren't saying it back to you or talking about it within themselves or with others, then there is no comprehension happening. Like they're just going to sit there with a blank stare. So, if you ask higher order thinking questions, it will make them think why something happened, rather than just responding yes or no. They should be able to tell you why something being learned is important.

During both interviews, participants brought up the need for parental involvement and how it had an impact on student engagement. They discussed how when parents are actively involved with the curriculum, they believed there is a positive correlation of learning and engaging in instruction. Generation Z Teacher Candidates want parents to be enthusiastically involved in the curriculum. The participants considered this would produce constructive outcomes. Furthermore, interviewees acknowledged that the families who not are actively involved are parents who teachers rarely hear from. Lexi, the clinical teacher from focus group 1, shared:

The kids that have their parents involved are willing to do everything to help and are talking with their kids at home, but the ones that you don't hear from are the ones whose kids have no one to talk to when they get home.

The participants acknowledged that they are currently placed in schools that have an enrollment in which more than 50% of the school's population is considered socio-economically disadvantaged. Interviewees had been present, alongside their cooperating teachers, when attempts were made to communicate directly with parents, but after several efforts, no direct communication had been successful. Lexi claimed that it was "ridiculous" that there were parents who do not respond to communication from the school and teacher. Several participants chimed in by saying that they have seen their cooperating teachers reaching out to parents of children who are failing, but despite several phone calls, emails, and home visits, the parents are unresponsive. However, the participants from both focus group interviews recognized they have noticed that the students who excel in school have parents who attend school sponsored events, attend regular parent-teacher conferences, and respond to communication, both written and verbal.

Generation Z Teacher Candidates understand that things will not always go according to the way they envision. They know they will have to be flexible with the instruction and curriculum and adapt as needed to challenges that may arise in the classroom environment.

Every participant had a negative reaction to the standardized test that is mandated in the state of Texas, the State of Texas Assessments of Academic Readiness (STAAR). Jennifer, a field-based student in focus group 2, said the following:

I didn't take the STAAR, but we look at the STAAR in our college courses, and I just read this article. I don't know if any of you have heard this, but the article was about a

girl that wrote a story for her fourth-grade writing test. Then, the STAAR people ended up using it and making questions for it. She answered the questions over her own story and failed it. She wrote the story. How are you failing the questions over your own story? I know that we can't get rid of it, but that's ridiculous.

Based on this response, the researcher asked the participants for ways in which they might address this problem, especially when considering that Texas ranks near the bottom in education of national testing of eighth-graders in math and reading, per U.S. News and World Report (2017). The responses varied. Zoey, a field-based student in focus group 2, suggested that they could "disguise" testing preparation. The researcher asked her to elaborate on this. She explained how easy it would be to ask students questions using similar questions that mimic the assessment. Additionally, she offered other suggestions for disguising the assessment, such as reading plays and acting them out, and having simple daily warm-ups that resemble possible assessment questions. Upon hearing these responses, the other participants in the group responded by stating "informal assessments." Participants concurred that relying solely on testing does not reflect students' true ability.

All participants from focus group 1 claimed the state mandated assessment "discourages students." Again, the researcher asked this group for alternative options. Tony responded by saying he would give students options but did not expand on what those options would consist of; instead, stating that testing should not be considered "such a big deal." Danielle, a field-based student in focus group 1, asserted "testing doesn't determine who the kids are." Furthermore, Courtney, also a field-based student in this group, was adamant when she said, "Kids are all different from each other all the time." Again, the researcher asked participants to provide alternatives that they might consider. Susan, Amna, and Terry were not able to provide specific

alternatives; rather, they suggested a “different test.” The one clinical teacher in this particular focus group, Presley, did not offer an alternative, but offered this perspective on the issue: “The wording on the tests are different from what they [teachers] use in the everyday classrooms. The vocabulary is completely beyond them. It’s even hard for us to understand what is being asked.”

The mention of this topic coincided with a lot of cross-talking, making it hard for the researcher to focus on one conversation. The topic became a heated debate, not because these Teacher Candidates were in favor of it, but rather because of the aversion to mandated tests. They were in favor of alternative assessments, such as informal assessments, and are more than willing to be flexible in order to meet the needs of the students, as Tony stated: “If it isn’t working, then change it. Just because you have the lesson written doesn’t mean you have to use it. We change it up, and we’re more willing to be flexible than our current cooperating teachers.”

Similar to flexibility, Generation Z Teacher Candidates claimed they are adaptable to the challenges that may arise in instruction. They understood that this was an important quality to possess as a teacher. Susan, a field-based student in focus group 1, insisted that she was not bothered when something, such as a lesson, did not go according to plan: “It doesn’t hurt our feelings if something doesn’t work. I think we’re very like okay, let’s change this because this isn’t working. We are more than willing to adapt.” Similar responses came from the second interview, with Lexi expressing the following:

I know our lessons won’t turn out the way it’s supposed to. We know it’s not going to be perfect, but at the same time, we’ve been taught to choose our battles. Being able to adapt will make or break us.

The other participants approved of her comment and further spoke about their lack of understanding as to why some cooperating teachers do not adapt their instruction. Veronica, a

field-based student in focus group 1, noted, “too many old teachers refuse to change their ways.” Fellow participants in focus group 1 nodded in agreement with her statement.

Beliefs about differentiation. Generation Z Teacher Candidates believed that what makes them unique when compared to more experienced teachers was their ability and willingness to differentiate instruction. Their beliefs were stated with decisiveness and with no-second guessing.

When the researcher asked the participants in focus group 1 to provide examples that set them apart from their cooperating teachers, Courtney was the first to respond by saying, “technology.” She went on to state how some teachers do not know how to use technology effectively, and that her generation knows how “to get through to today’s kids and we have the ability to incorporate it better for different learners.” Participants in focus group 2 approved, professing, “we can actually incorporate the tablets or any other piece of technology rather than just having it there gathering dust.” Participants understood that they have lived in a society that is empowered by the use of technology. They believed technology can be beneficial for all learners and that instruction should be guided by using technology rather than just having “worksheets after worksheets.”

Another subtheme that emerged under differentiating instruction was the facilitation of the use of manipulatives in the classroom and the incorporation of collaborative activities. Focus group 1 participant, Amna, claimed that her peers were “more open to using different types of resources; we’re more open to like working with hands-on activities.” Participants referred to the term “student creativity” often in focus group 2. The researcher asked them to elaborate on what their definition of “student creativity” meant. Zoey replied by stating the following:

I think what we mean is having different forms of turning stuff in instead of just having

them turn in a worksheet with answers. We could have them do the assignment as a diorama or as a poster board or something. I feel like the teachers we see now do not like divergent thinkers, so if you can break away from that idea and let students find their own ways of doing different things it allows them opportunities to think outside of the box. We would probably create something way better than just answering questions. Students do not all learn the same, and I think we understand that better than the teachers we see in our cooperating teacher's classrooms.

The participants then began speaking about their grade school days, stating that they were rarely afforded opportunities to "express themselves." They looked forward to offering collaborative activities that represent students' originality.

The third subtheme discussed was the notion that Generation Z Teacher Candidates believed in assuring that every student represents different values and brings with them unique background experiences, thus needing to view students individually. Terry, a participant from focus group 1, stated, "students learn best from each other; they build off each other's different knowledge. No one student is the same. Teachers need to embrace that and view each one individually." Another participant, Veronica, affirmed by saying, "Yes, teachers modify for lower students, so why not offer the same for higher students? Every student is unique and should be viewed as a sole student, rather than a class full of high or low students." Participants spoke about assigning roles to all students and leaving no one out. It would provide a "sense of belonging for all of them," according to Terry. Focus group 2 participants suggested that teachers do not want to "view students as individuals" because "it's too much work for them." However, these participants agreed that "differentiating means viewing students as individuals."

Additionally, when the researcher asked the participants if they would be willing to go to any lengths to ensure students' instructional needs were met, they all stated "yes."

Diversity as Perceived by Generation Z Teacher Candidates

The third theme that emerged from the two focus group interviews was diversity. According to the participants, students no longer look or act the same as compared to when they were in grade school. Generation Z Teacher Candidates shared their thoughts and beliefs about the term "diversity." Figure 12 provides a summary of the themes.

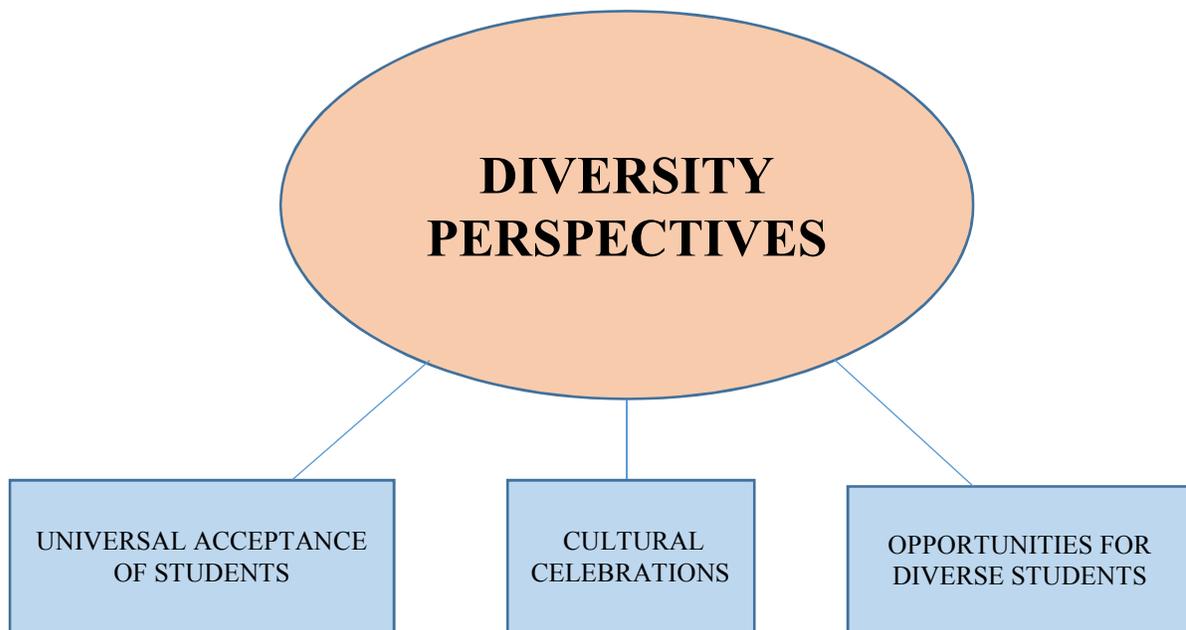


Figure 12. Theme 3 and subthemes.

Universal acceptance of students. Generation Z Teacher Candidates embrace the diversity that exists in today's classrooms. There was an acceptance that embodies today's classrooms, as suggested by focus group 1 participant, Terry:

There is gonna be different kinds of families. Just because someone's different doesn't mean that there's anything wrong with them. It's just how things work in other

communities and cultures, so we need to accept it and include it in our teaching and classrooms.

Rachel, a participant from focus group 2, stated, “. . . it’s our job to accept any and all students, regardless of where they come from.” Several participants also asserted this notion, claiming that this “is what makes our country great.”

Cultural celebrations. One particular way Generation Z Teacher Candidates suggested they might embrace diversity was to partake in cultural celebrations. The researcher asked the participants from both focus group interviews to expand on the term “cultural celebrations.” The responses varied in both focus group interviews and included the following: having books from different cultures displayed throughout the classroom; being cognizant of each student’s personal background; inviting students to participate in grand discussions related to holidays from different parts of the world; showing and explaining why people celebrate different cultures; bringing in food from different cultures that represent a variety of students’ backgrounds; and displaying a calendar of other countries’ celebration in the classroom. Participants stated that cultures should be “acknowledged” and “celebrated” throughout the school year.

Opportunities for diverse students. Focus group 2 participants recognized diversity as something positive that could result in opportunities. For example, Julia, the only African - American Teacher Candidate in this focus group, expressed,

Just the fact that I’m here trying to become a black teacher. I don’t ever think I’ve ever had a black teacher... When you have people that look like you that are in position of authority, it gives others hope, a sense of respect that they can aspire to be like. I think that in itself, just being here, increases diverse opportunities for others of my skin color.

Another participant in focus group 1, Amna, the only Muslim participant, was recognized by participants in focus group 2 for her willingness to express her diversity. Rachel, from focus group 2 spoke about Amna: “That’s so awesome that she covers her head; it’s awesome for her students to be able to experience that. She’s not afraid to share her stories with them. It’s a great opportunity.” Lexi and Jennifer, also from focus group 2, indicated that diversity gave students a sense of hope and respect and something to aspire to be like. Similarly, Presley, from focus group 1, suggested that they (teacher candidates) would probably embrace the opportunity to bring in notable guest speakers from other cultures in order to bring awareness to the opportunities that exist.

Summary of Qualitative Findings

In conclusion, all sixteen participants related experiences attached to their general self-efficacy and teacher sense of efficacy. Two focus group interviews were conducted concurrently, and three major themes were developed from these data collections in the qualitative phase of the study: 1.) Generation Z are Caring, 2.) Instructional Beliefs, and 3.) Diversity Perspectives. Additionally, each theme included evolving subthemes. Descriptors were provided and discussed for each theme and subtheme. Within each focus group interview, there were varying levels of characteristics associated with the research pertaining to Generation Z. These characteristics, beliefs, and perspectives provide insight into teacher candidates who are on the verge of entering the teaching profession. The final chapter discusses these findings, draws conclusions, and explores the implications for the outcomes of the study.

CHAPTER V: DISCUSSION AND CONCLUSION

The purposes of this explanatory mixed methods inquiry were to determine the general self-efficacy and teacher sense of efficacy of Generation Z Teacher Candidates. This chapter is a discussion of the major findings of both the quantitative and qualitative phases of this sequential mixed model inquiry as related to the literature. Also included is a discussion on connections to this study and how it might impact future classrooms. The chapter concludes with a discussion of the limitations of the study, implications, and areas for future research.

This chapter contains discussion and future research possibilities to help answer the research questions:

1. What is the general self-efficacy (GSE) of Generation Z Teacher Candidates?
2. What is the teachers' sense of efficacy (TSE) of Generation Z Teacher Candidates?
3. Based on their general self-efficacy and teacher sense of efficacy, how do Generation Z Teacher Candidates view their role as first-time educators, regarding students, colleagues, and the teaching profession?
4. What are the perspectives of Generation Z Teacher Candidates on the importance of self-efficacy as it relates to their ability to adjust from being a student to teacher?

For this explanatory mixed methods inquiry, two established surveys were combined to create a single survey of 24 question. The two surveys were General Self-Efficacy (GSE) Scale develop by Schwarzer and Jerusalem (1995), comprised of 10 questions and Teachers' Sense of Efficacy Scale (TSES) developed by Tschannen-Moran and Woolfolk Hoy (2001), comprised of 24 questions. Following the analysis of the data, interview questions were developed, and two focus group interviews were conducted consecutively. The summary that follows will show the significant findings from the data analysis of the surveys and two focus group interviews.

The study was conducted during the Fall semester of 2018 and involved the administration of the combined survey completed by all field-based students and clinical teachers. Field-based students are students who are placed in schools two days per week, and the course is completed the semester before they enter clinical teaching. Clinical teachers are placed in schools every day of the week during their last semester before graduation. Additionally, the study participants were teacher candidates enrolled in a teacher education preparation program at a regional four-year university in South Texas at the time of the study and voluntarily agreed to participate. The survey was administered during the orientation dates of both field-based students and clinical teachers at the regional four-year university in South Texas.

Summary

The first question analyzed for the study was: “What is the general self-efficacy (GSE) of Generation Z Teacher Candidates?” To answer this question, the general self-efficacy scale by Jerusalem and Schwarzer (1995) was administered. The scale measured a general sense of perceived self-efficacy with the aim in mind to predict coping with daily difficulties as well as how one can adapt after experiencing a variety of stressful life events (Jerusalem & Schwarzer). The survey consisted of ten items. The sums are added together for each item. The higher the sum, the higher self-efficacy Generation Z Teacher Candidates possess. Likewise, the lower the sum, the lower self-efficacy they possess.

The overall sum for field-based students was 31.54, with an overall mean of 3.15. The scores are presented in Table 4.3. The data revealed that Generation Z Teacher Candidates, specifically field-based students, possessed a moderately high general self-efficacy. Furthermore, the overall sum for clinical teachers was 30.81, with an overall mean of 3.08. The scores are

presented in Table 4.4. The data revealed that Generation Z Teacher Candidates, specifically clinical teachers, also possessed a moderately high general self-efficacy.

Generation Z Teacher Candidates, both field-based students and clinical teachers, make-up an overall sum of 31.18 and an overall mean of 3.12. According to the research, individuals who possess a high confidence in their abilities to approach difficult tasks as challenges are more likely to be mastered rather a threat that should be avoided (Bandura, 1994). They have a strong commitment to achieving their goals, and they quickly recover from setbacks and failures. According to Bandura (1994), a productive attitude “produces personal accomplishments, reduces stress, and lowers vulnerability to depression (p. 78). Preservice teachers need to feel connected and have a high general self-efficacy for the responsibilities they will face when teaching (Ryel, Bernsauzen, & van Tassell, 2002). Self-efficacy is an important motivating factor in how preservice teachers view themselves (Arnold et al, 2011).

The second question analyzed for the study was: “What is the teacher sense of efficacy (TSE) of Generation Z Teacher Candidates?” To answer this question, the teacher sense of efficacy scale by Tschannen-Moran and Hoy was administered. The scale was used to measure teachers’ efficacy in student engagement, instructional practices, and classroom management. There is a long form and a short form of the survey. The authors recommend using the long form with preservice teachers because the factor structure is often less distinct for these respondents. The participants answered the questions on a Likert-type scale from 1 (nothing) to 9 (a great deal).

Field-based students had an overall mean of 7.05 for student engagement, while clinical teachers had an overall mean of 7.56. These scores are presented in Table 4.5 and Table 4.8. Student engagement ranked highest out of all three factors for field-based students, whereas it

was tied for second out of the three factors for clinical teachers. With a combined mean of 7.31, Generation Z Teacher Candidates possessed a high teacher sense of efficacy in student engagement. The research associated with Generation Z reveals that they want to be directly involved in the learning process. They are not interested in listening to lectures; they want to have a fully immersive educational experience (Kozinsky, 2017). Additionally, Generation Z thrives on curricula that is student-centered and engages them as active participants.

Collaborative technologies, such as digital projectors, interactive whiteboards, and mobile device apps make it easier for students to engage in interactive experiences (Doucette, 2018). It can be assumed that with a high sense of efficacy in student engagement, Generation Z teachers will strive to create student engagement that is meaningful, purposeful, and insightful.

Field-based students had an overall mean of 6.86 for instructional practices on the Teacher Sense of Efficacy survey, while clinical teachers had an overall mean of 7.75. The scores are presented in Tables 4.6 and 4.9. Instructional practices ranked second out of the three factors measured for field-based students, while it ranked first for clinical teachers. With a combined mean of 7.3, Generation Z Teacher Candidates also possessed a high teacher sense of efficacy in instructional practices. The data alludes to the notion that field-based students would benefit from professional development in instructional practices. However, the research suggests that Generation Z has a noticeably different and more constructive connection with instruction (Preville, 2018). By all accounts, Generation Z are true digital natives, which has changed the ways they communicate and learn. The following are ways in which Generation Z teachers plan to enhance their instructional practices: embrace personal devices, personalize their learning, conduct lessons and conferences with students online, and publish assignments digitally (Preville, 2018). Generation Z will use digital learning tools to enhance their instruction.

Technology has “always been a fully integrated experience into every part of their lives, and they don’t think education should be any different” (Kozinsky, 2017). Generation Z views themselves as masters in innovation of new learning tools, teaching styles, and unlimited access to resources (Kozinsky, 2017). This helps explain why Generation Z Teacher Candidates possess a high teacher sense of efficacy in instructional practices.

Field-based students had an overall mean of 6.84 for classroom management on the Teacher Sense of Efficacy survey, while clinical teachers had an overall mean of 7.56. The scores are presented in Table 4.7 and 4.10. Classroom management ranked last out of the three factors measured for field-based students, while it tied for second with student engagement for clinical teachers. With a combined mean of 7.20, classroom management ranked last for teacher sense of efficacy, but still represents a high sense of teacher efficacy in classroom management for Generation Z Teacher Candidates. The data showed that both sets of participants, field-based students and clinical teachers, need assistance in handling students who are disruptive or noisy. An important characteristic of Generation Z is that they are accustomed to instant gratification, thus potentially creating a cohort of impatient individuals. Generation Z has an attention span of only eight seconds; therefore, it will be vital for them to create a student-centered model in order to keep students engaged and allow less time for disruptions (Stillman & Stillman, 2017). Overall, the data suggests that opportunities for classroom management would be beneficial for both field-based students and clinical teachers.

The third question analyzed for the study was: “Based on their general self-efficacy and teacher sense of efficacy, how do Generation Z Teacher Candidates view their role as first-time educators, with regard to students, colleagues, and the teaching profession?” To answer this question, the researcher relied on transcripts analyzed from the two focus group interviews. As

first-time educators, Generation Z Teacher Candidates believed they have a responsibility to be empathetic toward students (McBee & Westcott, 2008). They are aware that students come from diverse backgrounds and appreciate the value that diversity brings to the classroom (Adams, 2017). Additionally, they recognize that they may have an impact on their colleagues who have taught for several years and who may lack the skills to shift from the behaviorist approach to learning to a more constructive approach (Seemiller & Grace, 2017). Their ability to adjust and be flexible helps them understand the unique needs of all students. Finally, they care about the teaching profession and what it stands for, such as building a positive and safe environment, reaching out to the community, and building a strong teacher/student rapport (Stillman & Stillman, 2017).

The fourth question analyzed for the study was: “What are the perspectives of Generation Z Teacher Candidates on the importance of self-efficacy as it relates to their ability to adjust from being a student to teacher?” Again, to answer this question, the researcher relied on data analyzed from the two focus group interviews. Generation Z Teacher Candidates acknowledged that their childhood played a role in helping them possess a strong self-efficacy (Bandura, 1977). Many participants faced trials and tribulations and are grateful to have made it this far in their education. The participants referenced their grade school teachers several times, mentioning how they disliked the ways they were educated, such as being placed in rows, never being allowed to collaborate, and listening to lectures. Because of this, the participants look forward to using their self-efficacy to build a strong foundation in their classrooms (Iorgulescu, 2016). Furthermore, Generation Z Teacher Candidates acknowledged the need for self-care. Self-care will play a pivotal role during the adjustment phase moving from student to teacher. They believe it is an

essential element that cannot be ignored (American Psychology Association, 2018). According to the participants, failing to meet their self-care needs will ultimately lead to teacher burn-out.

Conclusions

Based on the quantitative and qualitative findings, Generation Z Teacher Candidates possess a moderately high general self-efficacy and teacher sense of efficacy. Woolfolk-Hoy (2005) claimed that preservice teachers who possess a high general self-efficacy and high teacher sense of efficacy are more passionate, more open to new ideas, and more willing to use higher order thinking strategies. It can be concluded that Generation Z Teacher Candidates may potentially enter the teaching field with an increased general self-efficacy and teacher sense of efficacy.

Teacher education programs, cooperating teachers, principals, superintendents, university faculty, and hiring committees might benefit from understanding this new generation of teachers who are on the verge of entering the teaching field. If they are better prepared to meet the needs of Generation Z, teacher retention might increase.

Limitations of the Study

There are limitations of this explanatory sequential mixed methods inquiry. Because purposive sampling was used in the quantitative phase of the study, the researcher cannot say with certainty that the sample size was illustrative of the population (Creswell, 2002). The sample size was also restricted to a particular group of individuals, thus creating a small sample size ($n = 42$ for field-based participants and $n = 17$ for clinical teachers). Regarding the quantitative phase, there was a potential risk of non-response error, such as complications caused by differences between those who did respond and those who did not respond due to the low response rate (Dillman, 2000). The results of the analysis had limited generalizability, and the

results could only be generalized to those populations from which the sample was obtained (Tabachnick & Fidell, 2000). Additionally, the ratio of field-based students ($n = 42$) to clinical teachers ($n = 17$) was a limitation. The researcher also had no control over the gender or other demographic make-up of the subjects for the quantitative component of this sequential mixed methods inquiry.

Due to the nature of qualitative research, the data obtained during the second phase of the study may be subject to different interpretations by different readers (Creswell, 2007). Because of the interpretative nature of the qualitative research, the researcher may have introduced bias into the analysis of the findings. Finally, because of the non-experimental nature of the study, no causal inferences were drawn.

Implications for Practice

This study was conducted because there is a need for more studies that research Generation Z Teacher Candidates. The study contributes to the growing body of generational studies. It may also impact what is currently known about the general efficacy and teacher sense of efficacy of future Generation Z educators. While this study's population was small due to limitations, it provides a snapshot of teacher candidates' general self-efficacy and teacher sense of efficacy that might exist in a regional four-year university in South Texas.

The findings from this study could be used to help facilitate professional development opportunities and prepare teacher education programs, cooperating teachers, principals, superintendents, university faculty, and hiring committees to be prepared for this new generation of teachers. Second, the findings could inform the pedagogical theories and professional practices of stakeholders to help them understand Generation Z. Third, the study raises awareness for teacher education programs, cooperating teachers, principals, superintendents,

university faculty, and hiring committees to acknowledge a unique and diverse generational group. The study offers insight into the characteristics, beliefs, attitudes, and perceptions of Generation Z. Fourth, the findings might help education programs target areas of improvement. Fifth, this research provides cooperating teachers with an understanding of the perceptions and characteristics of teacher candidates that may be assigned to them as field-based students or clinical teachers. Finally, hiring committees should be aware of what to expect and should be willing to embrace this new generation of educators.

Recommendations for Future Research

A longitudinal study with the participants of this study might provide further research to confirm if Generation Z beliefs and perspectives had stayed the same or changed once they entered the actual teaching classroom. Furthermore, it is recommended that a follow-up of these same participants be conducted once they have taught for two years. At that time, the participants may have a basic perception for the daily challenges that occur in the classroom.

This study might be replicated utilizing different demographics. Research examining similarities and differences amongst genders might be beneficial and offer varying perspectives between males and females of Generation Z Teacher Candidates.

Participants from a regional four-year university in South Texas were involved in this study. Additional research utilizing different settings could confirm or alter the data collected in this study, so it might be meaningful to conduct the same study but in different university education preparation programs. It would be interesting to acknowledge if the same results would be yielded in different teacher education preparation programs that represent different diverse groups.

As the generation begins to shift to the newest generation of youngsters, Generation Alpha, which will include individuals born in 2012 until 2025, this research may help to provide an understanding of what to expect during the transition period. As Generation Alpha enters the teaching profession, there will be a need for more research, as with any new generation of teacher candidates and teachers. Administering the same surveys and conducting focus group interviews with Generation Alpha might provide meaningful information for teacher education programs, cooperating teachers, principals, superintendents, university faculty, and hiring committees. From an administrator's viewpoint, research regarding self-efficacy of teacher candidates is an important attribute to consider during the recruitment process (Breibur, 2017).

While Generation Zs' General Self-Efficacy and Teacher Sense of Efficacy was moderately high in this study, there is an overall need for more studies into the actual practice of Generation Z Teachers as they enter the teaching profession.

Final Remarks

Generation Z is just beginning to enter the workforce. They carry with them a variety of unique characteristics and penchants that have been shaped just as the previous generations before them. What this research has shown is that Generation Z Teacher Candidates are determined to be change agents of tomorrow. They believe they have the tools and resources to solve challenges that might diminish their self-efficacy. Additionally, they are determined to be innovative. They know they represent the most diverse generation yet, and they plan on leaving their mark for the next generation. They are digital natives and represent a generation unlike any other. Finally, they are determined to be advocates, not only for their students, but for what they believe in. They are problem-solvers and do not dwell on how or why a problem occurred; rather, they are passionate about solving issues that are important to them.

Generation Z is about to make their way into the teaching profession. Knowing this, teacher education programs, cooperating teachers, principals, superintendents, university faculty, and hiring committees have a responsibility to understand the characteristics, attitudes, and perceptions of Generation Z Teacher Candidates. This will be vital for the transition to teacher success and teacher retention. Generation Z Teacher Candidates' self-efficacy and teacher sense of efficacy are expected to be moderately high; however, if we plan to keep them in the profession, we must be willing to address their needs. This study has shown that there is a need to focus on the issues that shape their generation and support them in the successful transition from student to teacher.

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APPENDIX A

DATE: August 14, 2018

TO: Dr. Bethanie Pletcher, Faculty College of Education and Human Development

CC: Rochelle Cortino, Graduate Student
College of Education and Human Development

Dr. Faye Bruun, Faculty
College of Education and Human Development

Dr. Guang Zeng, Faculty
College of Education and Human Development

FROM: Office of Research Compliance

SUBJECT: Exempt Determination

Human Subject Research Activities that do not meet one or more exempt categories are subject to IRB review.

On August 14, 2018, the Texas A&M University-Corpus Christi Office of Research Compliance reviewed the following submission:

Type of Review:	Exempt Determination
Title:	General Self-Efficacy and Teacher Sense of Efficacy of Generation Z Teacher Candidates: A Sequential Explanatory Mixed Methods Study
Investigator:	Dr. Bethanie Pletcher
IRB ID:	106-18
Funding Source:	None
Documents Reviewed:	IRB 106-18_HSRP_Application_8_14_2018 106-18_Consent form_8_14_2018 106-18_Recruitment Script_8_14_2018 Focus_Group_Interview_Protocol_8_14_2018 Qualtrics Survey_8_14_2018

APPENDIX A

Based on the information provided, the Office of Research Compliance has determined the research meets exempt category: 45 CFR 46.101(b)(2) (Research involving use of educational tests, survey procedures, interview procedures or observation of public behavior).

Therefore, this project has been **determined to be exempt from IRB review**. You may proceed with this project.

Reminder of Investigator Responsibilities: As principal investigator, you must ensure:

1. Informed Consent: **Ensure informed consent processes, if applicable, are followed** and information presented enables individuals to voluntarily decide whether or not to participate in the research project.
2. Amendments: This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. **Any planned changes that would impact the criteria in which the exempt determination was made, requires submission by the investigator to the IRB to ensure that the research continues to meet criteria for exemption.** Changes to the protocol must be requested by submitting an Amendment Application to the Research Compliance Office for review. The Amendment must be approved before being implemented.
3. Completion Report: **Upon completion of the research project (including data analysis and final written papers), a Completion Report must be submitted** to the Research Compliance Office.
4. Adverse Events: Adverse events must be reported to the Research Compliance Office immediately.

Please do not hesitate to contact me with any questions at irb@tamucc.edu or 361-825-2497.

Respectfully,

Rebecca Ballard, JD, MA, CIP
Director, Research Compliance and Export Control Officer
Division of Research, Commercialization and Outreach

APPENDIX B

General Self-Efficacy Scale (GSE)

	Not at all true	Hardly true	Moderately true	Exactly true
1. I can always manage to solve difficult problems if I try hard enough	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. If someone opposes me, I can find the means and ways to get what I want.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. It is easy for me to stick to my aims and accomplish my goals.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. I am confident that I could deal efficiently with unexpected events.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Thanks to my resourcefulness, I know how to handle unforeseen situations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. I can solve most problems if I invest the necessary effort.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. I can remain calm when facing difficulties because I can rely on my coping abilities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. When I am confronted with a problem, I can usually find several solutions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. If I am in trouble, I can usually think of a solution	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. I can usually handle whatever comes my way.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

APPENDIX C

Teacher Beliefs - TSES		This questionnaire is designed to help us gain a better understanding of the kinds of things that create challenges for teachers. Your answers are confidential.								
<p><i>Directions:</i> Please indicate your opinion about each of the questions below by marking only one of the nine responses in the columns on the right side, ranging from (1) "None at all" to (9) "A Great Deal" as each represents a degree on the continuum.</p> <p>Please respond to each of the questions by considering the combination of your current ability, resources, and opportunity to do each of the following in your present position.</p>		None at all	Very Little	Some Degree	Quite A Bit	A Great Deal				
1.	How much can you do to get through to the most difficult students?	1	2	3	4	5	6	7	8	9
2.	How much can you do to help your students think critically?	1	2	3	4	5	6	7	8	9
3.	How much can you do to control disruptive behavior in the classroom?	1	2	3	4	5	6	7	8	9
4.	How much can you do to motivate students who show low interest in school work?	1	2	3	4	5	6	7	8	9
5.	To what extent can you make your expectations clear about student behavior?	1	2	3	4	5	6	7	8	9
6.	How much can you do to get students to believe they can do well in school work?	1	2	3	4	5	6	7	8	9
7.	How well can you respond to difficult questions from your students?	1	2	3	4	5	6	7	8	9
8.	How well can you establish routines to keep activities running smoothly?	1	2	3	4	5	6	7	8	9
9.	How much can you do to help your students value learning?	1	2	3	4	5	6	7	8	9
10.	How much can you gauge student comprehension of what you have taught?	1	2	3	4	5	6	7	8	9
11.	To what extent can you craft good questions for your students?	1	2	3	4	5	6	7	8	9
12.	How much can you do to foster student creativity?	1	2	3	4	5	6	7	8	9
13.	How much can you do to get children to follow classroom rules?	1	2	3	4	5	6	7	8	9
14.	How much can you do to improve the understanding of a student who is failing?	1	2	3	4	5	6	7	8	9
15.	How much can you do to calm a student who is disruptive or noisy?	1	2	3	4	5	6	7	8	9
16.	How well can you establish a classroom management system with each group of students?	1	2	3	4	5	6	7	8	9
17.	How much can you do to adjust your lessons to the proper level for individual students?	1	2	3	4	5	6	7	8	9
18.	How much can you use a variety of assessment strategies?	1	2	3	4	5	6	7	8	9
19.	How well can you keep a few problem students from ruining an entire lesson?	1	2	3	4	5	6	7	8	9
20.	To what extent can you provide an alternative explanation or example when students are confused?	1	2	3	4	5	6	7	8	9
21.	How well can you respond to defiant students?	1	2	3	4	5	6	7	8	9
22.	How much can you assist families in helping their children do well in school?	1	2	3	4	5	6	7	8	9
23.	How well can you implement alternative strategies in your classroom?	1	2	3	4	5	6	7	8	9
24.	How well can you provide appropriate challenges for very capable students?	1	2	3	4	5	6	7	8	9

