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Gina Pagano

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UNDERSTANDING PERCEPTIONS OF PROFESSIONAL DEVELOPMENT
IN A MULTI-GENERATIONAL LEARNING ENVIRONMENT
AMONG HIGH SCHOOL TEACHERS

By

GINA PAGANO

A DISSERTATION

Presented to the Faculty of the University of the Incarnate Word
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

UNIVERSITY OF THE INCARNATE WORD

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ACKNOWLEDGMENTS

It is hard to believe that, when I started this program over 9 years ago, I did not have a vision of what to expect and where the process would take me. I have always considered myself a lifelong learner, with school being my hobby. Starting college at the age of 27, I was like many other adult learners who had to maintain full time employment along with the other responsibilities that adulthood brings. School was not always the priority, but I always found a way. Going through the Doctoral Program at UIW was not always sunshine and rainbows. I struggled to balance school, work, and life, not always with positive results. However, even with the challenges and failures, I was not alone. It is very important to me to show my appreciation to the professors within the Dreeben School of Education. Since 2012, the faculty has gone through many changes. However, even though these professors are no longer with UIW, I owe my love of qualitative research to Dr. Audra Skukaускаite, and my love for adult education to Dr. Sharon Herbers.

I am extremely grateful to Dr. Alison Buck, Dr. Norman St. Clair, and Dr. Darlene Carbajal for all of the encouragement and support provided through this journey. Dr. Buck, I do not know how to express my deep appreciation to you and all you have done for me. Your words of encouragement, your patience, and your honesty really made all of the difference when I struggled to get motivated. Dr. St. Clair, thank you for always taking the time to sit with me and go through your step-by-step process, which never failed to help me understand what I needed when I could not identify the need for myself. Dr. Carbajal, thank you for your insights and feedback as I worked through my research and writing. Your advice was invaluable to my work.

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Most important, there is no way that I would have been able to achieve my learning journey goals without the love and support of my family: my mom and dad, thank you for always being there and never allowing me to quit. To my husband, Kai, thank you for always being there for me to vent and bounce ideas off. The continuous encouragement and support provided me with what I needed to push through this journey and embrace the challenge. I love you all, always!

DEDICATION

The world ain't all sunshine and rainbows. It is a very mean and nasty place, and I don't care how tough you are, it will beat you to your knees and keep you there permanently if you let it. You, me, or nobody is gonna hit as hard as life. But it ain't about how hard you hit, it's about how hard you can get hit and keep moving forward. How much you can take and keep moving forward. That's how winning is done!

—Rocky Balboa, *Rocky 5*

As far back as I can remember, the movie franchise *Rocky* has been the most inspirational to me, no matter what I am going through in my life. I would like to dedicate this to everyone who has touched my life and provided me with words of wisdom and strength. But I would also like to dedicate this to those who feel that they are not good enough to pursue their education dreams. Do not let anyone tell you that you are not good enough; you are, and you will succeed. All you have to do is take the first step; that first step will make all of the difference.

UNDERSTANDING PERCEPTIONS OF PROFESSIONAL DEVELOPMENT
IN A MULTI-GENERATIONAL LEARNING ENVIRONMENT
AMONG HIGH SCHOOL TEACHERS

Gina Pagano

University of the Incarnate Word

In today's workforce, individuals are staying in their respective professions longer and retiring at ages past 67, resulting in a generationally diverse workforce. Currently, teachers range from 21-80 years of age, working in the same profession and receiving the same professional development. Considering adult learning and the dynamics associated with individuals, the professional development provided to this workforce is facilitated in a one-size-fits-all arrangement (Gregson & Sturko, 2007), instead of facilitating diverse adult learning styles (Malik, 2015). The purpose of this study is to understand individual teachers' perceptions of the efficacy of professional development received in a high school education setting. Additionally, this research focuses on generational differences and how these differences may impact the learning environment for high school teachers. The study utilized a qualitative instrumental case study. The participants were teachers, Grades 9-12, in a Central Texas high school, who fall into one of the following generations: baby boomers, Generation X, and millennials.

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Chapter 1: Introduction and Background

Background

Professional development is defined by Wei et al. (2009) as quality and effective curriculum that enhances a teacher's knowledge and instruction and ultimately improves student outcomes. The main goal of professional development has always been and continues to be the constant learning and instruction that allows for the evolution of teachers as they grow into their careers (Fullan, 2007, 2016). Over the years, research has shown a decline in collaboration and in learning expectations from a professional development program (DuFour, 2004, 2015; Parson, Ankrum, & Morewood, 2016). In addition, professional development has been observed by researchers to have less focus on teacher enhancement (DuFour, 2004). Over the years, professional development has shifted to a workshop-based format, which does not place a focus on practical instruction (DuFour, 2004; Fullan, 2007; Mushayikwa & Lubben, 2009). More recently, Hökkä and Eteläpelto (2014) found that professional development for teachers indicated a lack of administration leadership, resources and professional identity, which results in barriers for effective teacher professional development.

Professional development is different in each organization, and there is a lack of research on the perception of teachers about the professional development they receive. Having the ability to understand teachers' perceptions about their professional development can be important to determine how to better implement their professional development and make improvements (DuFour, 2015; Fullan, 2007, 2016; Saunders, 2013). At the high school where I conducted my research, professional development is carried out two weeks prior to the start of the school year, and quarterly thereafter. Teachers do not participate in offsite professional development unless they do so at their own cost.

Currently, the professional development being conducted is based on core classes, such as English, math, and history, with limited or no focus on elective classes, such as foreign languages and specialized sciences. Professional development is conducted with all teachers in one room, with no consideration for diverse specialties or the learning style of the individuals participating. It is important that teachers have the option to be provided specific skills and strategies for their respective discipline (Bates & Morgan, 2018; National Middle School Association, 2010), which will provide teachers with the opportunity to participate in different strategies and provide feedback with follow-up meetings and evaluations. Giving teachers a voice can increase the benefits of professional development.

The focus of this study is an examination of teachers' perceptions of professional development, and also the impact on teachers in a generationally diverse workforce when professional development is facilitated in a one-size-fits-all curriculum.

Statement of the Problem

Lack of Relevant Professional Development

Over the past 20-plus years, there have been multiple initiatives on education reform that have placed a significant focus on teachers and their professional development (Gregson & Sturko, 2007; Xhomara & Treska, 2017). The problem addressed in this study is whether professional development received by high school teachers is perceived as relevant and effective, ensuring positive outcomes in teacher satisfaction and student success.

Poor Facilitation of Professional Development

Gokmenoglu and Clark (2015) explain that much of the professional development being provided to teachers is not facilitated to address how they learn best, or even directed at their individual skill sets. Gregson and Sturko (2007) agree and acknowledge that the implementation

of professional development is frequently facilitated in the form of in-service sessions, workshops, and seminars, and is not geared toward the subject matter being taught or teachers' experience level. Learning is not broken down by discipline, department, or grade. Gokmenoglu and Clark (2015) examined teachers' perceptions of the quality and efficacy of professional development, and found that, among the 1,730 teacher participants, there was an overall feeling that the professional development received was "below a desired standard" (p. 453). With teacher professional development being facilitated in a model that does not place a focus on adult learning or support a multigenerational workforce, it is likely that teachers are not able to bring best practices and lessons learned to the classroom. Potential consequences of this inability could lead to workplace dissatisfaction, teacher retention issues, or teacher and student success problems (Gokmenoglu & Clark, 2015; Kennedy, 2016; Parson et al., 2016; Shaha et al., 2015).

Gap in Literature Regarding Multigenerational Learning Environments

From a review of the literature, two things become clear: the first is that every high school teacher is provided with some form of professional development, and the second is that high school teachers work in a multigenerational environment. However, what is not known is whether there is a difference in how teachers from different generations perceive the professional development they receive. There is limited research to show whether the generation that a teacher belongs to plays a factor in their overall professional development learning experience (Lewis & Wescott, 2017).

Gap in Research on Teachers' Perceptions of Professional Development

Another gap in the literature relates to understanding the learning experience from the viewpoint of the teachers themselves (McCray, 2016; Shakman & Rodriguez, 2015). This qualitative research study addresses that gap by collecting and analyzing data from teachers that

provides insight into actual perceptions. The subsequent analysis of that data contributes to an understanding of how individual teachers feel about the professional development they receive.

Purpose of the Study

The purpose of this qualitative instrumental case study was to explore teachers' perceptions of their professional development, and their sense of its effectiveness in a Central Texas high school setting. Specifically, this study focused on teachers' perceptions of possible barriers, how being part of a multi-generational learning environment impacts best practices in their professional development, and their voices on how to design more useful professional development programs.

Research Questions

There is one primary research question this researcher seeks to answer, with five sub research questions.

RQ: What are the perceptions of teachers in a Central Texas high school of the effectiveness and relevance of their professional development in a multi-generational learning environment?

SRQ 1: What are the perceptions of teachers of the relevance of their current professional development activities?

SRQ 2: What are the overall expectations of high school teachers who participate in professional development?

SRQ 3: How do teachers perceive the efficacy of their current professional development methods?

SRQ 4: Are there perceived barriers to teachers' professional development when it comes to multigenerational learning environments?

SRQ 5: How does working in a multi-generational learning environment impact professional development training?

Significance of the Study

This research examined whether there was an issue with the current facilitation of professional development in a multi-generational learning environment. Additionally, it aimed to allow participants to have a voice about their professional development that could spark continuing interest among other researchers. There was also the potential to provide recommendations from the findings that would contribute to a platform for future research. The importance of continued research could facilitate larger, more longitudinal studies focusing on the issue. As a precursor to this research, a small pilot project was carried out with 13 high school teachers, asking three questions relating to their perceptions of the professional development they currently receive. Overall feedback from this pilot included multiple concerns that focused on three main themes: professional development is not geared toward the age and experience of the teacher, the material taught is not relevant or it is outdated, and materials are presented in PowerPoint format with no hands-on practice.

Conceptual Framework

The purpose of this qualitative instrumental case study was to examine how teachers in a high school in Central Texas perceive the effectiveness and relevance of their professional development in a multi-generational learning environment. The conceptual framework includes elements from Malcom Knowles' (1980) premises about the nature of adult learning and other adult learning theories, and generation theory, which has been explored by two groups of researchers: Karl Mannheim in 1923 (Pilcher, 1994) and Howe and Strauss (1991). The

conceptual framework provided the essential guidance for this study and helped in designing the research questions.

Methodology of the Study

This study utilized a qualitative approach. Qualitative methods allowed insight to be gained directly from the participants by listening to their own words and feelings (Creswell, 2013). Using an instrumental case study design allowed the study to gain in-depth reports of the actual perceptions of teachers in real time (Baxter & Jack, 2008; Yin, 2015). The purpose of this qualitative instrumental case study was to explore teachers' perceptions of their professional development and their sense of its effectiveness. Specifically, this study focused on teachers' perceptions of possible barriers to learning, how being part of a multi-generational learning environment impacts best practices in their professional development, and their voices on how to design more effective professional development programs.

The study was facilitated at a Central Texas high school during the months of January to May 2021. This timeframe allowed for teachers to participate in the bulk of the professional development provided by the school. All teachers were asked to participate in the study, and a purposeful sampling technique was used to ensure that selection of participants was inclusive (Palinkas et al., 2013; Suri, 2011). To maintain credibility, data collected in individual interviews and the focus group was triangulated throughout analysis.

Background of the Researcher

This research topic became of interest to me years ago when I was planning and executing professional development in my own professional career. I often found myself asking the question, Does this really matter? One main area that I needed to ensure I focused on was my own personal beliefs around professional development, to be sure that I in no way influenced the

participants during data collection. Even though each session taught was followed by an evaluation, I still was not certain that the material being provided in professional development settings really helped the participants do their jobs better. So, when it came time to pick a topic for my dissertation, I decided that this was a constant question on my mind and that I would like to explore it more deeply. I chose to research professional development content and examine adult learning and how often sessions do not take the particular audience into consideration. My hope was to gain understanding, answer my own questions, and add to the scholarly body of knowledge.

Definition of Terms

- Adult learning theory is the study of how adults learn, and how their learning differs from that of children (Knowles, 1980).
- Adult learners are learners typically characterized by being over the age of 25 and possessing characteristics that separate them from the traditional learner population (Merriam et al, 2007).
- Andragogy is the teaching of adult learners based on the learner's need to know, self-direction, life experience, experimentation, motivation, and self-readiness (Cox, 2015).
- Baby boomers (Merriam-Webster, n.d.) are defined as people born from 1946 to 1964, during the post–World War II baby boom.
- Education reform (Merriam-Webster, n.d.) is the goal of changing public education in terms of educational theory and practice. Where education reform once focused on inputs, it now focuses on outputs, such as student achievement.
- Experiential learning is the process of learning through experience and the change that occurs during the learning process (Girvan et al., 2016).

- A generation (Merriam-Webster, n.d.) is all of the people born and living about the same time, regarded collectively.
- Generation gap (Wikipedia, 2022) is a difference of opinions between one generation and another regarding beliefs, politics, or values. In today's usage, generation gap often refers to a perceived gap between younger people and their parents or grandparents.
- Generational theory is a recurring cycle of age cohorts called generations, with specific patterns of behavior that are regarded as intertwined with the history of the United States of America (Holyoke & Larson, 2009).
- Generation X (Merriam-Webster, n.d.) is generally defined as people born from 1965 to 1980.
- Millennials (Merriam-Webster, n.d.) are people born from 1981 to 1996.
- Multigenerational learning environment is when individuals from different generations work and/or learn in the same environment. When this occurs, there is an important role for educators/managers to look at training through a generational lens (Holyoke & Larson, 2009).
- No Child Left Behind is a U.S. Act of Congress that reauthorized the Elementary and Secondary Education Act; it included Title I provisions applying to disadvantaged students (U.S. Department of Education, 2014).
- Professional development is the thorough approach of advanced learning to enhance teachers' and principals' effectiveness and increase student achievement in the classroom (Learning Forward, 2015).

- Race to the Top (Wikipedia, 2022) is a national grant program that states apply to in order to implement educational reform according to standards and expectations outlined in the application.
- Transformative learning theory is the change that the learner experiences after a philosophical experience that shapes the learner's beliefs about themselves (Cox, 2015).

Summary

This study addressed the gap in research about the need to understand teachers' perceptions of their professional development. The study utilized a qualitative approach, with an instrumental case study design. By using this approach, teachers were provided with an opportunity to have a voice in their own professional development and on the impact of working in a generationally diverse environment. Exploring the findings from the research questions will provide a clearer picture on the steps that may need to be taken to ensure that teachers' voices are heard, and the findings will impact the way that current professional development is being facilitated at the Central Texas high school. Chapter 1 included background, research questions, statement of the problem, and other important components of the research.

Chapter 2: Literature Review

This study examined high school teachers' perceptions of the professional development they receive, along with their views on working in a multigenerational work environment. Research on professional development has previously been explored from the organizational and leadership lens, but not from the lens of the teachers (Darling-Hammond, 2014; Darling-Hammond et al., 2017; DuFour, 2004, 2015; Fullan, 2007, 2016). The purpose of this qualitative instrumental case study was to explore the perceptions of teachers in a high school in Central Texas of their professional development and sense of its effectiveness. Specifically, this study focused on teachers' perceptions of possible barriers to learning, how being part of a multi-generational learning environment impacts best practices in their professional development, and teachers' voices on how to design more effective professional development programs.

The literature review is structured in five sections: Background of Teacher Professional Development, Historical Context of Professional Development Expectations, Adult Learners, Outcomes of Professional Development, and Learning in a Multi-Generational Learning Environment. The literature examined the history of education and professional development, teacher expectations and perceptions, generational theory, and adult learning theory. Multiple platforms were used to find relevant literature, including the University of the Incarnate Word (UIW) Library, Sage Journals, Google Scholar, ERIC, and ProQuest. Early research focused on historical information and did not place a timeframe on the searches. Later research initially focused on the years from 2000 to 2018, then added through 2021. Multiple words and phrases were used during the gathering of literature, with some key words including teacher professional

development, education reform, adult learning, generational theory, effectiveness of professional development, and teacher expectations.

Background of Teacher Professional Development

While previous research addressed the effectiveness of professional development and the connections with adult learning, what was not addressed was the connection with the perceptions of teachers, and how working in a multi-generational learning environment may impact how learning is facilitated (Bayar, 2014; Darling-Hammond et al., 2017; Darling-Hammond & McLaughlin, 2011; Guskey, 2014). The purpose of this study was to gain an understanding of how high school teachers working in a multi-generational learning environment feel about their experiences and overall learning related to the professional development they receive.

Professional development is not a new initiative, and its implementation was a result of education reform (Darvin, 2012). According to Darvin (2012), historical research is relevant for the purpose of this study because professional development was originally created as a result of the need for education reform. According to Fritzberg (2004), education reform was examined in the United States in the 1950s and focused on the education system in the United States. This inquiry led to an investigative report known as *A Nation at Risk* (Gardner, 1983). While there was a total of seven recommendations made in this report, only two were applicable to this study: provide teachers more time to participate in both curriculum and professional development; and provide mentoring programs to new teachers led by experienced teachers (Park, 2004). The report highlighted the importance of the effectiveness of schools in the United States, leading to the No Child Left Behind Act in 2001. That Act focused on ensuring that all children, and more specifically disadvantaged students, would have an opportunity for equal education (Fritzberg, 2004). The importance of the Act is not just the focus on satisfactory scores

for the students, but that it ensures that teachers are exceedingly well qualified. Qualifications for teachers include a bachelor's degree, with continuing and up-to-date certifications Klein, 2015).

Historical Context of Professional Development Expectations

According to Futrell (2010), professional development in education has been important for many years. The background of education reform started as early as the 1700s, with progression over the years. Since the late 1950s, reforms known as Sputnik in 1957, Head Start in 1965, A Nation at Risk in 1983, No Child Left Behind in 2001, and most recently, Race to the Top in 2009 have become initiatives to improve education in America. Since 2009, there have been reform updates to both No Child Left Behind and A Race to the Top. In December 2015, the No Child Left Behind Act was replaced by Congress with Every Student Succeeds Act (ESSA) (Darling-Hammond et al., 2017; Ladd, 2018). ESSA adds an additional layer of evaluation for students; while still requiring testing for math and science, it also now includes a non-test measure for student learning and accountability. ESSA took effect in the 2017-2018 school year, but there is limited research on the impacts to date (Skinner, 2020).

In 2015, an update to A Race to the Top was announced by the U.S. Government, endorsing the most recent education initiative known as the Common Core State Standards (DuFour, 2015; Fullan, 2016). Common Core State Standards was set to provide “clear and consistent learning goals to help prepare students for college, career, and life.... [and] clearly demonstrate what students are expected to learn at each grade level, so that every parent and teacher can understand and support their learning” (Common Core State Standards Initiative, 2021). However, as of August 2015, only 42 of the 50 states had adopted the initiative, with Texas being one of the states that have not made the adoption.

According to Barrett and Toma (2013), with the increased focus on education reform, professional development in the field of education has more attention focused on content and facilitation. Furthermore, there is limited data that shows the efficacy of professional development. What makes this interesting is that professional development in the teaching profession is one of the largest investments schools make, but often with minimal results (Porter et al., 2003).

Education reform initially focused on math and science; however, one initiative did explore education: the Eisenhower Professional Development Program (Porter et al., 2003). This program was a Federal Government initiative that looked at all subjects in education from the period 1994 to 2002 (Desimone et al., 2003). The main goal of the Eisenhower Program was to support high-quality professional development. Porter et al. (2003) examined a sample of 396 schools during the years 1997 to 1998. Data were collected from telephonic interviews and paper surveys, with a final sample of 1,027 teachers. The results of this study focused on three areas of professional development: content, active learning, and coherence (Desimone et al, 2003; Porter et al., 2003).

Content is described as what is learned during professional development sessions. Porter et al. (2003) outlined four elements covered in professional development: subject matter content, methods of teaching, managing a classroom, and teacher practices. All these elements relate to student learning and performance. Researchers have found that focusing on content was a critical element of good professional development (Bates & Morgan, 2018; Darling-Hammond et al., 2017; Garet et al., 2001; Guskey & Yoon, 2009, Guskey, 2014; Schipper et al., 2018).

Active learning is described as the way teachers relate to one another in professional development and classroom settings (Bayar, 2014; Darling-Hammond et al., 2017; Desimone &

Pak, 2017). Porter et al. (2003) discussed the importance of engagement, group discussion, and planning, and the additional components of observation and peer-to-peer review. Researchers have outlined the importance of teachers working as a cohesive team to promote active learning during professional development (Bayar, 2014; Darling-Hammond et al., 2017; Desimone, 2009; Desimone & Pak, 2017).

Coherence is described as the need for professional development content to be connected to both learning and development (Darling-Hammond et al., 2017; Desimone, 2009; Guskey & Yoon, 2009; Guskey, 2014; Porter et al., 2003). Porter et al. (2003) examined how professional development adds to current teacher knowledge; how the content aligns with local, national, and state obligations; and teacher communication. Their study found that professional development can only be truly successful if the institution is committed to investing time and money into ensuring that the professional development provided is high quality and reaches the entire teacher population. Finding more up-to-date research on the outcomes of the Eisenhower Professional Development Program proved to be impossible.

Minor et al. (2016) explored the effectiveness of teacher professional development by looking at the content of the material being taught and the prior knowledge and experience of the teacher. Minor et al. used in-depth interviews with 14 teachers over a period of 3 years, focusing on how teachers' experience and prior content knowledge may explain variations in what teachers gain as a result of professional development received, and how teacher knowledge and features of professional development may interact to explain differential effects on teachers. Minor et al.'s study showed that professional development offered to teachers, without a focus on understanding what teachers already know, how they learn, what they need to learn, and

specialized training in specific content, is not as effective as professional development that contains these components.

Adult Learners

Adult Learning Theory

The conceptual framework for this research proposal consisted of two theories that connect when it comes to looking into the effectiveness of professional development in a workforce with multiple generations. The first is adult learning theory. While there are several adult learning theories that have emerged to address specific areas of adult learning, the work of Knowles (1980) framed the research for this study because his assumptions on learning provided an understanding of the individuality of each adult learner. Professional development cannot be looked at in a one-size-fits-all model due to the diverse learning styles of adults who participate in this type of learning (Gregson & Sturko, 2007; McGuigan, 2012).

Knowles (1980) describes the adult learner as self-directed, with an understanding of what their expectations are in the learning environment. Knowles (1968) explored the meaning of andragogy, which is defined as the “art and science of helping adults learn” (p. 351). Out of his research, Knowles generated six assumptions about the adult learner, as follows: (a) as a person matures, his or her self-concept moves from that of a dependent personality toward one of self-direction; (b) adults gather a wealth of experience as they learn; (c) the readiness of an adult to learn happens when they understand the benefit; (d) there is a change as adult learners mature and understand the ability to problem solve using what has been learned; (e) when adult learners’ motivations are internal as opposed to external; and (f) adults need to know what is the purpose of what they are being asked to learn (Darden 2014; Knowles, 1980; Merriam et al., 2007).

Teaching adult learners can be challenging to facilitators of professional development, due to the diversity of the participants. Knowles (1975) responded to a question asked of him about whether he believed professional development training could be considered a form of adult education. Knowles responded by stating that education is defined as the “systematic, intentional development of increasing competence by individuals of all sorts with the help of services and resources of people and institutions of all sorts” (p. 40). According to Knowles (1980), adults need to feel accepted, respected, and supported in their learning. Using adult learning theories and looking at the theories through the lens of a workforce that is generationally diverse could provide insight on how to ensure information being taught captures the needs of all who are participating.

Table 1

Andragogy

Andragogical assumptions	Description	Implications for practice
Self-concept of learner	Self-directing, autonomous, responsible for their learning.	Adult-friendly learning climate (physical and psychological). Providing a planning self-diagnostic, and self-evaluation experience.
Prior experience of learner	Accumulated experiences as a main resource of learning	Emphasis on experiential techniques and practical application. Unfreezing and learning to learn from experience.
Readiness to learn	Life related, developmental tasks	Providing proper timing of learning and grouping of learners.
Orientation to learn	Problem centered, contextual	Course title considering matter of grammar and style in the context of the practical concerns of the learner.
Motivation to learn	Intrinsic value	The instructor should recognize the adult learner’s reasons for coming to the learning event: ask what brought them to the event.
Learner’s need to know	Need to know why they need to learn something	The instructor should provide a rationale for the course objectives and activities.

Source: Adapted from Knowles, 1980.

Holyoke and Larson (2009) discuss the diverse learning styles of adults that include differences in learning and in communication, gender, personalities, and even readiness to learn. The inclusion of these diverse adults in one educational setting can prove to be a challenge. However, there is not enough literature to obtain statistics on how effective professional development is with diverse age groups in the education environment. Adult learning theory has progressed over the years. Research by King and Lawler (2003) focused on new initiatives in professional development for adult learners: the vision of the adult learner, adult education, learner centered/transformational learning, and the need to learn with motivation and technology. Holyoke and Larson (2009) conducted this research in 2003, over 18 years ago, and it is not clear whether current literature addresses the success of such initiatives. Most recently, Ross-Gordon et al. (2017) examined Knowles' six assumptions from the 1980s and determined that these assumptions remain relevant. One finding that challenged Knowles' assumptions was found to be that some adult learners prefer to "learn in a teacher-directed or group-directed process of learning rather than being an independent learner" (Ross-Gordon et al., 2017, p. 220).

Transformative Learning

More than 30 years ago, Jack Mezirow (1991) introduced his theory of transformative learning to assist in understanding how adults interpret their world. According to Whitelaw et al. (2016), Mezirow believed that an adult's personal experiences play a substantial role in his/her learning process. As a part of his research, Mezirow (1991) termed the phrase "disorienting dilemma," which Christie et al. (2015) defined as when

we encounter experiences, often in an emotionally charged situation, that fail to fit our expectation and consequently lack meaning for us, or we encounter an anomaly that cannot be given coherence either by learning within existing schemes or by learning new schemes. The literature reflects that transformative learning is one of the most researched

theories in adult learning, as evidenced by over 30 dissertations that used the theory to frame the research. (p. 94)

According to Kitchenham (2008), the research in those 30 dissertations highlighted Mezirow's 1975 study for the U.S. Department of Education, "Education for Perspective Transformation: Women's Re-entry Programs in Community Colleges," which addressed the needs of women in the United States who were looking to continue their education as adults. The programs outlined in the study represented a diverse population in New York, New Jersey, San Francisco, and Washington State (Kitchenham, 2008). Findings from the study showed that the participants had experienced a "personal transformation" (Kitchenham, 2008, p. 105). In addition, Mezirow & Mar-sick (1979) defined "perspective transformation" as "the alteration or modification of meaning perspectives," which are those "psychological structures within which we define ourselves and our relationships." It is the reconstruction of "our personal frame of reference, our self-concept, goals, and criteria for evaluating change" (p. 58).

According to Kitchenham (2008), Mezirow also included a nationwide telephone survey of 24 colleges in 11 states and a mail inquiry to 1,172 two-year colleges, with responses from 846 colleges and 314 participants. The research determined that the participants had experienced a personal transformation based on steps of transformative learning outlined by Mezirow (Kitchenham, 2008). The study's outcomes showed that participants exhibited more critical self-reflection, critical discourse, validation, and best judgment. Transformative learning relates to this study because critical reflection remains important to adult learners. Personal reflection and the ability to adapt to a workplace are necessary where there may be challenges among the team of teachers as well as in the way professional development is being facilitated (Kitchenham, 2008).

To further support Mezirow's idea of adult learning, a mixed methods research study was facilitated by King (2004) that focused on how transformative learning impacted the professional development of adult educators. King placed a focus on 58 adult educators who ranged from 21 to 59 years of age. Each participant in the study was given a Learning Activities Survey (King, 2009). This survey consisted of questions to assist King (2009) in learning about the experiences of adult learners, followed by an in-person interview for additional clarification and data. This survey was administered over the course of four years at the conclusion of the same adult education course. Results of the study show that over 62% of the participants expressed experiencing transformative learning in the following ways: more open-minded attitude, stronger ability to reflect, ability to reassess social expectations, increase in critical reflection, and a deeper understanding of their worlds.

Over the years, transformative learning has been the focus of much additional research. Kim and Merriam (2011) state that "transformative learning is much more than a rational process—it's complicated, personal, and often powerfully emotional. To understand the multiple dimensions of transformative learning, researchers have increasingly implemented creative and alternative methods" (p. 367). Some of these methods include arts-based alternatives, along with the use of one's imagination and creativity (Kim & Merriam, 2011).

Experiential Learning

When examining adult learning theory, it is also important to look at the experience of the adult learner. John Dewey and David Kolb are frontrunners in experiential learning theory.

John Dewey was one of the founding voices of experiential learning (Roberts, 2003). Roberts (2003) discusses Dewey's conceptual model, which outlines that knowledge and real-life experiences are the starting points for adult learners. Experiences not only influence current

learning, but future learning as well. According to Roberts, Dewey established a five-step method for thinking and reflection on experiences: (a) reflecting on the problem, (b) establishing the limits or characteristics of the problem in precise terms, (c) testing possible outcomes and populating a wide range of hypotheses, (d) considering possible outcomes and acting on these considerations, and (e) acceptance or rejection of solutions (King, 2004). Dewey also firmly believed in the notion of instrumentalism, known in education as learning by hands-on practice and involvement of one's own learning experiences (Grady, 2003; Romano, 2017).

Another frontrunner in experiential learning theory is David Kolb. According to Kolb (2015), "learning is a continuous process grounded in experience" (p. 25). Kolb has collected six suggestions in response to experiential learning, consisting of the following:

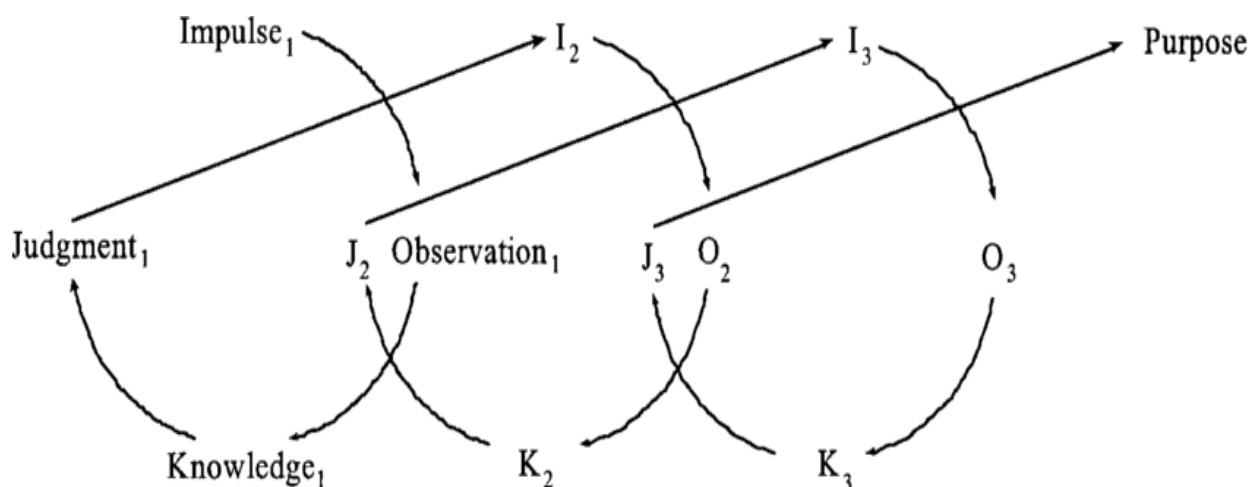
learning is best conceived as a process, not in terms of outcomes; learning is a continuous process; learning requires a resolution of dialectically opposed modes of adaptation to the world; learners must move back and forth between opposing modes of reflection and action; learning is a holistic process of adaptation to the world; learning involves interactions between the person and the environment; and learning is the process of creating knowledge. (Kolb & Kolb, 2017, p. 25)

Kolb (2014) defines learning as "the process whereby knowledge is created through a transformation of experience" (p. 49). The experiential learning cycle consists of four stages that include experiencing, reflecting, thinking, and acting (Kolb & Kolb, 2017). Girvan et al. (2016) explored experiential learning theory in teacher professional development in a qualitative study comprising 12 participants who were asked to participate in a series of workshops and individual and group interviews. The study set out to engage teachers using the experiential model of experiencing, reflecting, thinking, and acting. Results from the study indicate that teachers reported feeling encouraged with the ability to be comfortable with sharing experiences, reflecting, and working in a collaborative environment (Girvan et al., 2016). With this finding, it

becomes apparent that altering professional development methods can provide both increased satisfaction in teacher professional development and overall student success.

Figure 1

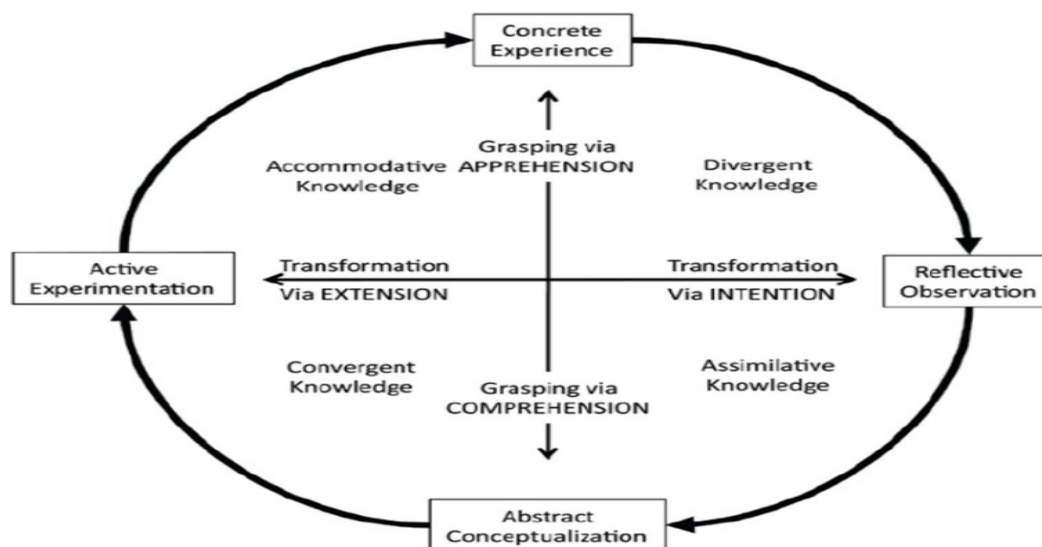
Dewey's Experiential Learning Model



Note: This figure provides the concepts of experiential learning through the lens of John Dewey. Adapted from *Camelot: Center for Adaptive Multimedia, Education, and Learning Content Technologies*, by Li Shin, 2019 ([MMLS@Wordpress\(mmu.edu.my\)](https://mmls.wordpress.com/mmuedu.my)). In public domain.

Figure 2

Kolb's Experiential Learning Model



Note: This figure outlines the four components of Kolb's experiential learning model. Adapted from *Learning Matters*, by Dr. John Warner, 2008 ([Learning Matters: Learning Styles-The work of David Kolb \(typepad.com\)](http://LearningMatters: Learning Styles-The work of David Kolb (typepad.com))). In the public domain.

The work of Dewey and Kolb with experiential learning theory can be best understood in their respective learning models, which are shown in Figures 1 and 2.

Highlighting these two models in a visual depiction shows both the similarities and differences in the works of Kolb and Dewey. Both figures outline four stages of learning but provide a distinct focus on observation and reflection within the individual's experiences (Kolb, 1984).

Outcomes of Professional Development

Professional Development Effectiveness

Over the years, there has been a great deal of research conducted on the general topic of professional development. The research has focused on many factors that include its effectiveness, satisfaction, delivery, best practices, and student achievement (Garet et al., 2001; Lauer et al., 2014). What is missing is the understanding of how professional development works in terms of improving teachers' ability to meet their own learning objectives and the learning objectives of the organization in which they work. Kennedy (2016) conducted a review on professional development in a K-12 school setting in the United States. The review placed a focus on research from 2000 to 2014 that concentrated on professional development and teaching. In all, the review explored 28 peer-reviewed journal articles. According to Kennedy, professional development should consist of three major initiatives: teacher improved knowledge, change in teacher practice, and improved outcomes in student learning. If there is a flaw in the facilitation of the professional development, the effectiveness of the professional development may be at risk. The main objective of professional development is to enhance teacher

knowledge; however, Kennedy found that “there is little consensus about how PD [professional development] works ... what happens in PD, how it fosters teacher learning, and how it is expected to alter teaching practice” (p. 945).

Patton et al. (2015) examined the teaching profession and outlined effective professional development as having eight core features: needs/interests, social process, collaborative, ongoing/sustained, active, development of skills, facilitation with individuality, and student learning improvement. Patton et al. explained that the practice of including these core features in professional development would allow teachers to move forward and increase knowledge. By not adhering to these core features, Patton et al. noted that the needs of the teachers would not be met, and professional development would continue to exhibit stagnant results. This study’s findings are consistent with what Patton et al. noted regarding core features. A recent study by Xhomara and Treska (2017) also outlined the importance of core competencies in teacher professional development. These competencies include those as outlined in the study by Patton et al. (2015).

According to Markow et al. (2013), Met Life facilitated a survey of teachers titled “The MetLife Survey of The American Teacher” in 2012. The survey used both qualitative and quantitative methods to gain insights into the perceptions of teachers and principals. Data collection consisted of a telephonic survey of 1,000 teachers over the course of 30 days. One of the main findings of this study on teacher professional development was that there has been a decline of 23% in teacher satisfaction since 2008, which was the lowest in 25 years, and that teachers who were less satisfied were located in schools that showed a decline in professional development and teacher collaboration (Markow et al., 2013).

Student Success

According to Briant (2009), in addition to enhancing a teacher's knowledge and effectiveness, professional development is meant to ensure student learning. There are many schools that offer professional development at the beginning of the school year in the form of a two-day workshop, with no follow up to determine what was learned and whether the learning could be transferred to the teachers' practice. Shaha et al. (2015) indicates that, for professional development to be successful for both teachers and students, it needs to be facilitated in an ongoing platform, as opposed to single sessions two to three times per year. Student success is a key component of much of the research on teacher professional development (Guskey, 2014, 2017). Shaha et al. (2015) carried out a longitudinal study that focused on 25 states, including 78 school districts, over a period of seven years. Teachers in these select schools were provided a variety of professional development options on an on-demand online platform, with content that met the needs of all levels of teachers. Findings of the study showed that students' performance increased by 12.77% over the course of the seven years.

According to Chu et al. (2016), professional development also needs to incorporate materials to meet the current classroom setting. Students in today's classrooms can benefit from more modern ways of teaching that include social media, virtual platforms, digital storytelling, and media-based content.

Learning in a Multi-Generational Learning Environment

Generational theory frames the research for this study because it provides an understanding of the uniqueness of each generation and its impact on teachers' perceptions about their professional development. According to Howe and Strauss (1991), generational theory

posits that the period in which an individual was born affects the development of his or her view of the world. Individual values and beliefs are formed in the first years of life by families, friends, communities, significant events, and the general era in which individuals are born. Generation theory has been explored by two groups of researchers, Karl Mannheim as early as 1923 (Pilcher, 1994) and Howe and Strauss in 1991.

Generational theory is defined by Lyons and Kuron (2014) as “a theory about a group of individuals born within the same historical and socio-cultural context, who experience the same formative experiences and develop unifying commonalities as a result” (p.140). According to Pilcher (1994), both Mannheim and Howe and Strauss have contributed to the understanding of generational theory: Mannheim believed that historical events that occurred in an individual’s youth have an impact on their lives and views as they grow older and form relationships with others of the same generation. Howe and Strauss (1997) hold the same views; however, they also include the impact of social influences and major historical events, believing that there is a cyclical aspect to historical events that impact generations.

As previously noted, there are potential consequences of poorly executed professional development among the teacher population. Over time, the lack of effective professional development could lead to workplace dissatisfaction, teacher retention issues, or teacher and student success problems (Podolsky et al., 2016; Wiedmer, 2015; Zwahr, 2015). Zwahr (2015) addresses the issue of teacher retention, with the younger generation staying one to five years, while the older generations often stay in their positions more than 20 years. According to Zwahr, a reason for the disparity is the lack of professional development that meets the needs of these adult learners. The younger generation needs extended time, active participation, and collaboration, where the older generation is more apt to learn in the traditional (pedagogy)

format (Holyoke & Larson, 2009). The younger generation likes to use technology in their learning, whereas the older generation relies on books and other forms of learning and professional development.

A study carried out by Culp-Roche et al. (2020) looked at online learning and the use of technology in the wake of the COVID-19 pandemic. The qualitative study focused on four generations (baby boomers, Generation X, Generation Y, and Generation Z) with a further focus on three elements, including incorporation of technology, opinions on technology, and ease of use with technology. The study found that the incorporation of technology into courses facilitated online and student opinions about technology use were not much different by generation. However, baby boomer and Generation X individuals reported less ease of use with technology and increased nervousness using technology than from Generation Y participants (Culp-Roche et al., 2020).

Holyoke and Larson (2009) carried out a study that examined how adults learn, with a focus on the generational differences between three generations of learners. The study included 60 participants from two graduate level courses. The participants were provided multiple surveys over the course of a semester using the Critical Incident Questionnaire (Brookfield, 1995). The two graduate classes were taught in both online and hybrid classrooms. Participants were grouped by the following: 50% Generation X, 30% baby boomers, and 20% millennials. The findings were outlined in three sections: Readiness to Learn, Orientation to Learn, and Motivation to Learn (Brookfield, 1995). One of the most significant findings of this study was that all three groups of adult learners learned best by making personal connections to the materials.

Lai and Hong (2015) focused their research on trying to verify if there were any distinctions in learning with the use of digital technology. Their study consisted of over 800 participants who were placed in three age groups that included under 20, 20-30, and over 30. A Likert scale was used, with ten components that included digital literacy, connectedness, multi-tasking, partiality for experiential learning, partiality for group work, partiality for images over text, need for structure in learning/goal oriented, need for social aspect, need for immediacy, and community focus (Lai & Hong, 2015). The study outlined both what the participants had in common and what differences were found. Findings on what the participants had in common indicated that 90% of participants prefer learning by exploration, 78% prefer learning by doing, 74% prefer learning via images, video, and other multi-media elements over text, and 54% prefer not to learn by being provided large amounts of text passages. Findings on the differences among participants included the use of digital technology tools offered by the university. Six tools were outlined and included laptops, internet, google, iPod, Facebook, and cell phones. The differences showed that the three groups used these technologies in different ways, both in their everyday life and in relation to the school environment (Lai & Hong, 2015). These findings were comparable to the study by Holyoke and Larson (2009) indicating that the three generations of adult learners in their study learned best by making personal connections to the materials.

Chapter 2 has provided an all-inclusive look at the history of teacher professional development, in addition to how education reform factored into the way professional development is viewed in an educational setting. Research on education reform showed that there remains a slow progression in improvements in professional development for teachers. Literature on andragogy and theories of adult learning, with a focus on experiential learning, transformative learning, and generational theory, was explored, providing a context of how

adults learn within their generational cohort. Additionally, literature on the outcomes of professional development as it relates to teacher success and student success was presented. A limitation of the literature review was the lack of research on these issues carried out over the last five years, making this study even more imperative.

Summary

The purpose of this literature review was to offer a comprehensive background to professional development and how teachers perceive the effectiveness of what they are provided within their institution, and their feelings about working in a multigenerational learning environment. Through synthesis and analysis of all of the literature, several concepts emerged. The most important was the gap in research on teachers' perceptions about the professional development they receive. There is also a gap in research about the facilitation of professional development in a multigenerational learning environment. This study examines teachers' perceptions of both, with an overall goal of raising awareness and reducing the literature gap.

Chapter 3: Methodology

Professional development consists of both required and optional learning opportunities for teachers provided by the school district. The purpose of this qualitative instrumental case study was to explore the perceptions of teachers in a Central Texas high school about their professional development and their sense of its effectiveness. Specifically, this study focused on teachers' perceptions of possible barriers to learning, how being part of a multi-generational learning environment impacts best practices in their professional development, and their voices on how to create and facilitate more effective professional development programs.

Teachers were asked about their perceptions of the effectiveness and relevance of their professional development in a multi-generational learning environment, their perceptions of the relevance of their current professional development activities, how they perceive the efficacy of their current professional development methods, the perceived barriers to professional development when it comes to multigenerational learning environments, and how working in a multi-generational learning environment impacts professional development training. Data collected from the participants was in the form of individual interviews and a focus group. The conceptual framework of this study includes Knowles' theory of adult learning, Mezirow's transformative learning theory, and Howe and Strauss's generational theory.

This chapter provides enhanced details and the rationale for the utilization of an instrumental case study, along with the methodological approach, recruiting process, role of the researcher, and data collection methods and analysis.

Research Design

The main goal of this qualitative research study was to create meaning on the topic of professional development by obtaining data on how teachers in a Central Texas high school

interpret their own experiences with professional development. An instrumental case study approach was used. According to Stake (2005), the central purpose of an instrumental case study is to help advance understanding of an issue or phenomenon. This approach made it possible to gain insight and to better understand the perspectives of the participants, along with having the ability to analyze the individuality of their experiences.

Data collection methods used were interviews and focus groups, collected from full-time high school teachers only. The use of these two data sets and limiting the study to full-time teachers made it possible to compare both sets of data to strengthen validity and reliability, and keep the study focused.

Methodological Approach

This instrumental case study included teachers from a Central Texas high school, with a focus on three generations: millennials, Generation X, and baby boomers. The participant pool consisted of 69 teachers, all employed at the school. At this school, teachers are provided with professional development opportunities throughout the school year, with the main focus on two weeks prior to the start of the first semester. This study was facilitated during the 2020-2021 school year. Due to COVID-19 precautions, all interviews were conducted via the Zoom platform and at the convenience of each participant. The Central Texas high school consists of Grades 9 through 12, has an overall teacher population of 157, with 69 being full time teachers with a student size of 2,214, a 14.1 student-teacher ratio. The high school is in the top 50% of all Texas schools in overall test scores, with a 57% diversity rating (Public School Review, 2021). The total population of the school is highlighted at 157. This number includes teachers and supporting staff, as well as counselors, resource officers, and other staff employed at the school.

The participant pool of 69 teachers was determined by the availability of their contact information on the school's website.

Population and Sample

Recruiting Process

Institutional Review Board (IRB) approval was received on 4 November 2020. A list of all high school teachers was obtained from the school website. Their emails were gathered in an Excel spreadsheet for organizational purposes. All of the teachers were sent an email requesting their participation in the study (Appendix E). The email provided vital information on the study, along with a Survey Monkey link asking five questions, which took an average of a minute to complete. The questions asked were:

- First Name
- Last Name
- Years of teaching at the school
- What age range do you fall in (23-39, 40-55, 56-74, other)?
- Are you willing to participate in this research study?

Invitees were given two weeks to express interest in participating in the study. In total, 16 teachers responded, expressing interest in participating in the study. After the two-week deadline, the 16 teachers were contacted via email to discuss the specifics of the study and were provided with the informed consent documentation. Once all of the participants were selected, the location and time of the interviews and focus group were organized on their terms and based on their availability. Eleven participants were selected for the study, consisting of four baby boomers, four Generation X, and three millennials. Due to COVID-19 precautions, all interviews were conducted via Zoom during the period of January 13, 2021, to February 8, 2021. With the

permission of the participants, all interviews were recorded with both audio and video on Zoom. Methods used to gather data included individual interviews and a focus group. These data collection methods explored participants' experiences of professional development, working in a multi-generational learning environment, and overall perceptions of effectiveness of the material that is offered.

Demographics

For this study, purposive sampling was used, which allowed for the selection of participants with a greater understanding of the research problem and main phenomenon in this study (Palinkas et al., 2013; Suri, 2011). Participant criteria included the following: full time teacher at the high school teaching Grades 9-12, teaching either virtually or in-person, active participant in professional development at the high school, and one of the three generations focused on in this study (baby boomer, Generation X, and millennial). These criteria were set to allow for the maximum number of teacher participants to qualify. In addition, there were no restrictions on race or ethnicity identification. Designing the study to focus on three generations at the high school allowed the study to gain insights from each participant that explained how teachers perceive the professional development training they receive, and how working in a multi-generational environment impacts their day-to-day professional life.

Role of the Researcher

My role as sole researcher consisted of data collection, recording, analyzing, transcribing, and ensuring that all of the data collected was protected and stored in accordance with IRB guidelines. I had experience in planning and providing professional development training to adults and had a family connection with this Central Texas high school that helped in understanding the limitations of professional development provided to teachers. Relationships

and trust with the participants were developed and maintained throughout the data collection and analysis period. As both a receiver and planner of professional development training, I was able to relate to participants' responses and concerns around participating in professional development training.

Researcher positionality can be an issue in research and is defined as the researcher's overall view and the position that is taken during the research, with a focus on both social and political context (Holmes, 2020). Savin-Baden and Howell-Major (2012) suggest a number of primary identifiers to identify researcher positionality, including acknowledging personal positions on the topic, use of researcher positionality in connection with the participants of the study, and acknowledging views on the context of the research. Because the use of self-reflection and reflexivity are important to ensure the maintenance of non-bias in research, I wrote a positionality statement using guidelines to include, but not limited to, beliefs on the research, history with the research topic, connection to participants, thoughts on the findings of the research, and overall hopes for the research (Holmes, 2020).

Data Collection Methods and Analysis

Data Collection and Recording Plan

All procedures for data collection followed the guidelines outlined by the UIW IRB, approval number 20-11-002 (Appendix A). In addition, approval to facilitate research was provided by the Principal and Superintendent of the high school (Appendix F). The IRB approval consisted of the following documentation: informed consent (Appendix B), interview questions (Appendix C), focus group questions (Appendix D), email to participants (Appendix E), and letters of approval from both the school principal and school superintendent (Appendix F).

The first step in data collection was facilitating the individual interviews. Facilitating these interviews established rapport on an individual basis rather than in a group setting and gathered data to answer the research questions. With what is currently being experienced with COVID-19, it was imperative that every attempt was made to protect participants. All interviews were facilitated via Zoom. Individual in-person interviews were recorded, and observation notes were completed during each session. During individual interviews, additional questions were asked. While it was planned that each interview last approximately 60 minutes, the interview sessions ranged on average from 35-50 minutes. All generations participating in the study were asked the same questions, with an expectation of varied responses per generation, and even varied responses within the same generational cohort. Interview questions included:

- What are your perceptions of the effectiveness of the professional development you receive in your multi-generational learning environment?
- What is the sense of relevance of your current professional development activities?
- What are your expectations when receiving professional development?
- Are there perceived challenges to your professional development when it comes to the multigenerational learning environment?
- What do you feel are the most important aspects that should be included in professional development curricula?
- How do you learn best?
- What hinders your learning?
- What helps during your learning process?

Upon completion of the interviews, data consisted of 11 participants' views and in-depth responses regarding their true feelings and perceptions of their experiences with professional development and their multi-generational learning environment.

The second step of data collection was the facilitation of a single focus group. With the current COVID-19 situation, it was imperative that participants continue to be protected. The purpose of the focus group was to generate conversation on individuals' perceptions of their experiences, validate the data previously collected, and provide additional data. The single focus group was facilitated via the Zoom platform with two participants, at a length of 45 minutes. Focus group questions were developed from the eight themes that stemmed from the individual interviews. Data from the focus group was used to validate the data obtained from the participant interviews. Using the previously collected data, member checking procedures were facilitated, along with additional data obtained. It was hoped that more than one focus group could be facilitated to get data from all those who participated in the individual interviews, but only two participants were able to participate in the focus group, even after being contacted a number of times. Despite the low attendance for the focus group, the data from facilitating this group validated the data in the individual interviews and provided additional data for the research.

Microsoft Word and a software system called Otter were used to assist in the coding and transcription process. To assist in understanding the data, I used a reflective journal that included observations and questioned assumptions. A rich set of data was obtained from the interviews and focus group and was sufficient to approach saturation, which is met when the researcher is unable to find new data, themes, or codes, and indicates ability to replicate a study (Fusch & Ness, 2015).

Issue Preparedness and Data Storage Plan

Maxwell (2013) outlines the importance of being prepared to face issues before and during the facilitation of the research. One main area of interest for me was personal beliefs of professional development and a wish to avoid influencing participants during data collection. I accomplished this by not discussing any of my personal views during any of the interviews or the focus group. Another area of concern was the site of the study. Some participants who responded to the recruiting email voiced concern about the study being focused on their specific workplace and the fear of reprisal if their participation was known. Each concerned participant was reassured there were confidentiality and anonymity measures in place. However, even with this assurance, there were two individuals who declined to participate. All data collected from the individual interviews and focus group were labeled using P1, P2, P3 etc., without names, and placed in a password protected file and stored on a computer in my office.

Data Analysis Plan

Data analysis for qualitative research follows multiple steps. According to Creswell and Poth (2018), data analysis includes, but is not limited to, preparation and organization of data, reflecting and journaling, organizing data based on methods, creating descriptions of participants and overall themes, and understanding and explaining the larger significance of the data. Case study data can be analyzed using multiple techniques (Yin, 2015). Stake (1995) allows for the application of a flexible design in data analysis. Having the ability to adjust data collection methods allowed me to focus on issues as they emerged. Stake (1995) discusses the strategy of categorical aggregation, which provided me with the tools needed to cluster my data into categories and further search for meaning.

Various levels of coding required many back-and-forth comparisons of the data obtained. Coding also included various categories, including but not limited to situations, ways of thinking, individual perspectives, relationships, and contexts of information (Bogdan & Biklen, 2003). With data from the individual interviews and focus group, there was a rich set of data obtained during the analysis process. Data analysis began immediately after each interview and the information learned was utilized to improve each subsequent interview. Throughout the data analysis process, data was interpreted through note taking, memos, listening, transcribing, reviewing, and coding, which took multiple attempts. NVivo coding was also employed as a method of data analysis. NVivo coding provided me the capacity to take data from the participants and use short phrases and words to establish specific codes (Miles et al., 2020).

Using computer-based programs such as Microsoft Word, Otter, Microsoft Excel, and NVivo allowed for an additional layer of data analysis. Using computer-based programs also allowed for a more arranged storage system for data. NVivo provided the option to utilize the search engine and look for specific words and catch phrases, which then allowed the identification and development of themes that saved time in the process. NVivo also provided the opportunity to use concept mapping and keep any researcher bias to a minimum, while detecting codes and themes. The process of data analysis began with the interview process, which then was transcribed using both Microsoft Word and Otter. Once the transcription process was complete, the audio data was listened to again to account for any errors in transcription.

To further organize my data, Microsoft Word was used to input all codes into an organized codebook. Microsoft Excel was used to organize themes, definitions, codes, and aggregate references. Saldana's (2009) outline of the qualitative process of coding (Figure 3) was used as a guide to assist with data analysis. By utilizing this graphic, I was able to strategize how

I was going to organize my data from the coding process to the development of themes.

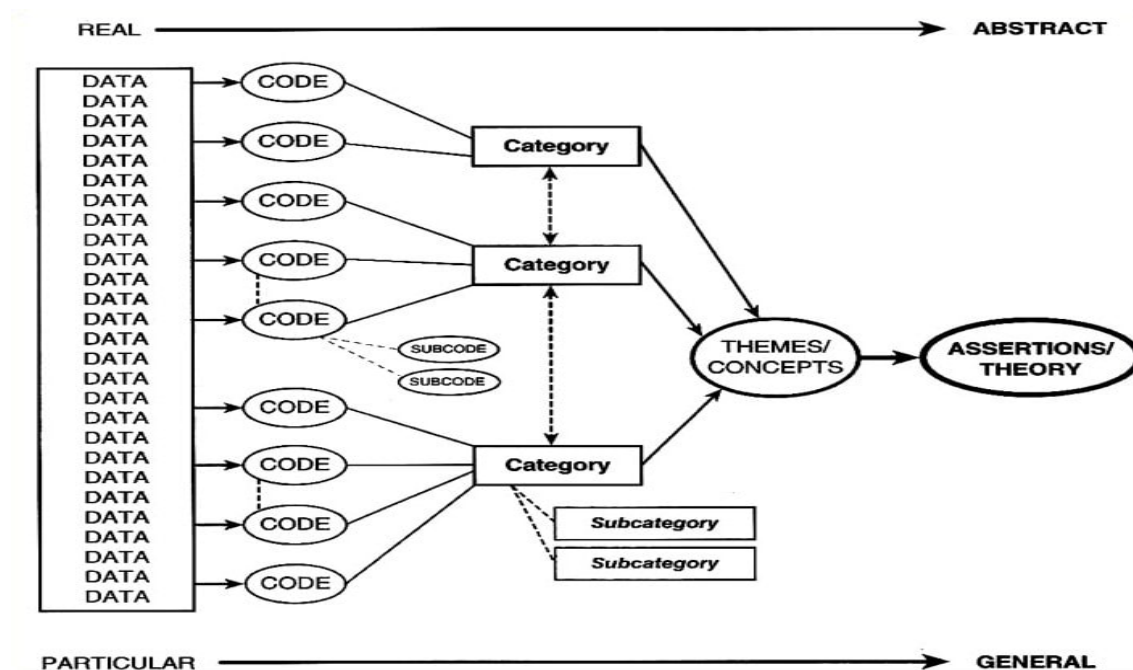
Following the process outlined in Figure 3, over 221 codes were developed, which led to the development of 26 categories, which was ultimately narrowed down to eight themes.

Validity, Triangulation, and Trustworthiness

In order to enhance trustworthiness in this study, it was important to focus on credibility, transferability, and confirmability. Miles et al. (2020) and McCray (2016) explains the above terms in detail: credibility is also known as internal validity, providing evidence to show that the study findings are reliable and valid; transferability allows for the study's findings to be replicated by others to demonstrate using their own applications in a similar setting; and confirmability allows for the study's findings to be verified by other researchers and data.

Figure 3

An Outline of the Qualitative Process of Coding, Categorizing and Theme Building.



Note: This figure outlines Saldana's code to theory model for qualitative data analysis. Adapted from *Experiential Learning*, by Paul McAfee, 2019 ([Qualitative Data Analysis\(QDA\) - EXPERIENTIAL LEARNING \(paulmcafee.com\)](https://paulmcafee.com/)). In public domain.

Strategies to ensure trustworthiness included member checking and triangulations. Member checking allowed each participant the opportunity to analyze the findings and provide comments and/or clarifications after the interview was transcribed (Harper & Cole, 2012). A transcription of the interview was provided to each participant via email, with a request to provide feedback. Triangulation was completed by the implementation of individual interviews, focus group, and multiple phases of literature review.

Ethical Considerations

The code of ethics outlined by UIW was consulted before the study began, and the proper consents and IRB approvals obtained prior to data collection. After approval from IRB was received, participants were recruited via a mass email that was sent to the high school, which outlined the research, extended a request for participation, and explained the safeguards that would exist to provide confidentiality. There were no requirements to provide data on gender, race, and/or ethnicity, although these questions were asked with no expectation of a response. Because of the potential for ethical considerations like autonomy and confidentiality, informed consent, and skills of the researcher to be issues (Merriam & Tisdell, 2016), all participants were provided with specific information on the data collection process in order to protect their autonomy and confidentiality. To further protect participants, all video interviews recorded on Zoom were deleted, with the researcher only keeping the audio file and downloaded transcription. All audio recordings and transcriptions were saved in an encrypted file labeled only with a number assigned to each of the participants.

Each participant was provided with a noncoercive disclaimer to ensure that they knew that this was a voluntary project and that they could withdraw from the study at any time (Fouka & Mantzourou, 2011). Finally, each participant was informed that the researcher was working as a

Ph.D. candidate under the supervision of faculty at UIW. Providing this information ensured the participants understood that the researcher could be held accountable and was supervised throughout the research process.

Bias

Understanding and monitoring biases facilitates valid and trustworthy research. Every attempt was made to minimize bias from entering this research project. According to Jansen and Laurie (2016) and McCray (2016), there are five specific components of bias: facilitator, question, response, example, and transcript. To reduce moderator bias, the individual interviews and focus group were casual in both facilitation and attire. The interviewer did not voice any opinions or make opinionated facial expression and body language throughout the Zoom sessions. Sample bias was avoided by ensuring that all 69 full-time teachers were provided with an opportunity to participate in the study. Finally, to mitigate the presence of reporting bias, the data was triangulated by fully analyzing all individual interviews transcripts, focus group transcripts, audio files, and multiple phases of literature reviews. Member checking and online journaling were also a key part of validation. Understanding that there are times when bias is unavoidable, all actions necessary were taken to minimize the effect of any bias that could occur. Validity measures in this research included member checking, triangulation, reflective writing, and personal memos to ensure that data indicated a complete picture of the research findings (Miles et al, 2020).

Summary

This study examined the perceptions of teachers of their professional development, along with their feelings about working in a multigenerational learning environment. This chapter provided a summary of the steps taken to include the methodology, research design, population

and sample, data collection and analysis plan, along with a discussion on the importance of ethical considerations and bias. An instrumental case study methodology was used for this research study. This study was conducted at a Central Texas high school, providing an opportunity for 69 full-time teachers to participate. The instrumentation of this study used both individual interviews and a focus group, with data analysis methods including both computer-based software and NVivo coding. Member checking and triangulation provided the validity measures to ensure all bias and ethical considerations were met.

The next chapter will discuss the findings from data collection and answer the research questions.

Chapter 4: Data Collection, Analysis, and Findings

Professional development is a learning opportunity for teachers, allowing them to extend knowledge in their professional practice (Mitchell, 2013; Wells, 2014). However, the quality of professional development has declined due to schools' lack of resources, education reform, time, turnover, and an increased focus on state testing (Chomsky & Robichaud, 2014; Edgerton & Desimone, 2019; Podolsky et al., 2016). The purpose of this qualitative instrumental case study was to examine how teachers in a high school in Central Texas perceive the effectiveness and relevance of their professional development in a multi-generational learning environment. This study is meaningful because the findings could be used to enhance professional development practices and design at the school of focus. Chapter 4 will discuss the study participants, data collection, data results, and the trustworthiness of the study.

Pilot Study

As a precursor to this research, I facilitated a small pilot project with thirteen high school teachers at a research site, asking three questions related to their perceptions of the professional development they currently received. The participants of the pilot study consisted of two baby boomers, eight Generation X, and four millennials. I asked each participant three questions: (1) What do you feel are the **issues** in the professional development you receive? (2) Do you feel that your professional development is **effective**? If not, why? (3) What do you feel is **missing** from our current professional development?

Table 2 outlines the consolidated feedback from the three questions. The overall feedback included multiple concerns that focused on three main themes: professional development is not geared toward the age and experience of the teacher; the material taught is not relevant or is outdated; and materials are presented in PowerPoint with no hands-on practice.

Table 2*Pilot Study Response*

Issues	Effectiveness	Missing
Geared towards the beginner level	Outdated training	Teacher choice
Old materials/old format	Mandatory/Not effective	Relevancy to teacher
Not relevant/No benefit	Check the box training	No hands-on practice
Too much material, limited time	Information provided could just be sent in an email	Presenters that know content
Talked at/No application	Not geared towards individual needs	Training relevancy
Poor Presenters	No follow up on training effectiveness	Situational trainings
Power point instruction		More time devoted to training

Participant Summary

Participant criteria included the following: full time teacher at high school Grades 9-12, could be teaching either virtually or in person, were an active participant in professional development at the high school, and were identified as one of the three generations focused on in this study: baby boomer, Generation X, or millennial. The baby boomers are currently the largest generation and comprise individuals who were born between the years 1946 and 1964. Generation X comprises individuals who were born between the years 1965 and 1980. Millennials, currently the youngest generation in today's workforce, were born between the years 1981 and 2003 (Hansen & Leuty, 2012; Howe & Strauss, 1991, 2007).

Table 3 outlines the demographics of the final participants of the study. There were seven female and four male participants, with overall teaching experience ranging from 1 year to 28

years, with 1 to 26 years spent teaching at the Central Texas high school that was the subject of this study. Generationally, there were three in the millennial group, four in the Generation X group, and four in the baby boomer group. The table also provides details on the subject and grade levels being taught by each participant.

Table 3

Demographics of Participants

Participant #	Generation	Gender	Overall Years of Experience	Years of Experience at Central Texas HS	Subject Being Taught	Grade Level
P1	Baby boomer	Male	17	17	Foreign Language	9-12
P2	Millennial	Female	6	2	Algebra	9-10
P3	Millennial	Female	3	2	Aquatic Science	9-10
P4	Baby boomer	Male	3	3	World Geography	9
P5	Generation X	Male	26	26	English	9-10
P6	Generation X	Female	5	5	Foreign Language	9-10
P7	Millennial	Female	1	1	English	9-10
P8	Generation X	Male	10	2	World Geography	9
P9	Baby boomer	Female	28	2	Foreign Language	9-10
P10	Baby boomer	Female	13	3	Aquatic Science	11-12
P11	Generation X	Female	19	10	Foreign Language	11-12

Professional Development

Participants outlined specifics on the professional development that they received in the 2020/21 school year. The district provided two weeks of professional development/in service training prior to the start of the school year. The sessions included all teachers of Grades 9-12. Sessions were focused on classroom management, special education, how to use the library, campus safety, expectations for the new school year, state testing, and schoology/engenuity

(these are the school's learning management systems) but were not broken down by subject or department. Session facilitators were school administration and/or staff members. There was no discussion of outside facilitators being present.

After the start of each school year, teachers are provided one professional development day every six weeks. This equates to an average of six days per school year. These sessions allow teachers to use all of this time to meet as a team in relation to their department and the subject content they teach. The sessions are described by participants as allowing for collaboration and curriculum development. There is no mandatory requirement for teachers to actively participate in the department meetings, as they have the option to participate in self-directed professional development sessions online or on their own. Teachers have the option to attend professional development sessions or department meeting but can also use the time working on their own. The district also provides a variety of self-paced online training, which can be completed at the teacher's discretion, with credit being provided by taking a test at the end and submitting a certificate to administration.

Participants reported that there was limited teacher involvement with the content of the professional development being offered. The majority of the content related to school policies and procedures, or to the core subjects. Professional development was not relevant to what teachers needed and provided no option for learning choices. There was mention that the district did provide some funding for teachers to participate in professional development sessions outside of the school. However, this was outside of the school hours and often during the summer months, and not all teachers were provided this opportunity.

Interview Summary

The first phase of data collection was individual interviews, which consisted of 16 open ended questions (Appendix C) that were designed to answer the research questions. The final number of participants totaled 11, resulting in a representation of 16% of the teacher population at the site. Participants taught a variety of content areas, including history, English, foreign language, and science. The individual interviews were conducted approximately two months after IRB approval, due to scheduling around teachers' winter break. Each participant was contacted via email to organize an available date and time. Once confirmation of the date and time were completed, it was confirmed via email and with a calendar invite. The calendar invite included the date, time, topics of discussion, Zoom link, and the list of interview questions.

In the opening of each individual interview, I discussed and explained the informed consent document again with each participant and provided the guidance that this was a voluntary study and that they could opt out at any time. Each participant was asked for their permission to record the session and was informed that I would be the only researcher listening to and transcribing the data. Per the informed consent document, participants were again notified that there would be no identifying information and that the video would be deleted and only the audio would be used in the study. Each participant audio file would be labeled as P1, P2, P3 and so on.

Interviews averaged about 30-45 minutes in length. Participants were very candid with their responses and opened up about their feelings about their experiences with current professional development and what they would like to see offered in the future. In addition, participants were open about their experiences working in a multi-generational learning environment. At the conclusion of each interview, the participants were informed that they

would be provided with the complete transcript for review to ensure accurate transcription of their words.

All data were recorded using the Zoom platform, with the permission of all participants. The interviews were transcribed using a three-step process. The first step was using Microsoft Word immediately after each interview, which allowed me to organize, color code, and label the data. Color coding was used to highlight the interview question being asked, with additional colors being used for both participant and researcher responses. Responses that required additional follow up and clarification were also highlighted.

The second step was the use of a web-based transcription service known as Otter. Otter is a subscription service that allowed me to upload audio files and be provided with a transcription of the data. Otter also allowed me to edit, organize, and label the data for greater understanding. My final step of transcription was to listen to the audio file in its entirety and compare it to the two transcriptions for accuracy. All recorded interviews were encrypted with a password with all identifying information removed.

An example of steps utilized in the interview stage can be found in Table 4.

The data in Table 4 indicates the process utilized during the individual interviews, which shows the thorough approach used during participant questioning. By using active listening, engagement, and probing, I was able to ask follow-on questions to obtain additional data for each response.

Focus Group Summary

The second phase of data collection was the facilitation of a focus group with the participants who completed the individual interviews. After multiple attempts, I was able to facilitate one focus group on Saturday, 15 May 2021. The focus group was scheduled to include

Table 4*Participant Interview Questions, Participant Interview Responses, and Follow Up Questions*

Participant Interview Questions	Participant Interview Response	Follow -Up Questions	Assessment Process
What are your overall expectations of the professional development provided at Central Texas High School?	Well, my expectation is that for our first two weeks back, at the beginning, before the school year starts, that we get training, that is useful and practical was ideas and things that we can easily implement in the classroom, and help us to advance basically, student learning, and also learn about the new things that are relevant to us. (Generation X)	Has COVID impacted how training is facilitated?	Active Listening Probing
What are your perceived barriers to professional development when it comes to being a part of a multi-generational learning environment?	The perceived barriers for me, I feel as we grow older, especially with the beginning, you know, also with social media and all these rapidly changing things in our education environment, it is hard to keep up, harder to stay on top of new developments and changes. And really filtered through the content that is relevant to me specifically as a teacher, and also relevant to my students. So, I wish I had a better understanding or somebody who could guide me through it. And especially in my content area to help me understand more about new technological advances and innovations (Baby boomer).	Has COVID impacted how training is facilitated?	Active Listening Probing
Does your high school consider the different generations when planning and facilitating professional development training?	No, there is no differentiation. As far as the different age groups and how professional development is conducted. There is none of that. So, it is really just sort of like a cookie cutter lesson plan. It is mainly based on PowerPoint presentations that everybody is being rushed through. And it is the same thing every year. But just sometimes under a different heading different title, just prepackaged or package is something different or unique or new. But five minutes into the lesson, we realized very quickly. It's just the same material, same old stuff that we've been doing for many, many years (Generation X).	How do you think that the administration could change this?	Active Listening Active Listening Engagement Probing

6 of the 11 participants, but only two showed up for the scheduled meeting. I decided to proceed with the focus group as planned. The session lasted approximately 45 minutes using the Zoom platform. Although the session was both video and audio recorded, no participants engaged their cameras. The two participating teachers were of two generations, millennial, and generation X.

The focus group started with the overall findings that were discovered during the individual interviews, which were outlined in eight major themes identified in the research. Each theme was discussed in detail, and included member checking for any misunderstandings or additional clarification. The focus group audio was transcribed using both Microsoft Word and Otter, with the final transcript provided to the two participants for accuracy checking via email.

Although the focus group participant turnout was not as anticipated, data from the session proved to be beneficial to the research, specifically with member checking and validation of the eight themes derived from the data that came out of the individual interviews. Participants provided a vital form of member checking (see Table 5) and confirmed the data from the individual interviews that outlined concerns with poor facilitation and ineffectiveness of professional development. With two generations represented in the focus group, it was interesting to see the back and forth between the two participants when responding to the questions asked.

Transcription

All data were recorded using the Zoom platform, with the permission of all participants. Interviews were transcribed using a 3-step process. The first step was using Microsoft Word immediately after each interview, which allowed me to organize, color code, and label the data. The second step was the use of a web-based transcription service known as Otter. Otter is a subscription service that allowed me to upload audio files and be provided with a transcription of

the data. Otter also allowed me to edit, organize, and label the data for greater understanding. My final step of transcription was to listen to the audio file in its entirety and compare it to the two transcriptions, for accuracy.

Table 5

Focus Group Feedback From Two Generations

Theme/Focus Group Question	Generation/Response
Practice of Ineffective Professional Development Training	<p>"I have not benefited from the training." (Millennial)</p> <p>"Training is like a quick refresher of old information, nothing new is provided." (Generation X)</p>
Raising the Bar: Elevating Professional Development for Teachers	<p>"Most of the training is on our own, so you never know if there is progress in teaching skills." (Millennial)</p> <p>"Training is rushed and limited, and there is just not enough material covered to benefit and improve our teaching." (Generation X)</p>
Barriers to Effective Professional Development in a Multi-Generational Teaching Environment.	<p>"I think the technology that we use is great, but the training from the administration on how to use it is limited and can be frustrating to implement." (Millennial)</p> <p>"There is a big difference, I know the older teachers do not use technology as much, but I also feel that we cannot buy into the stereotype that the older generations do not know or can't be taught how to use it." (Generation X)</p>
The Generational Divide	<p>"I think the younger teachers are able to connect more with the students because we are closer to their age and can better understand their way of learning, where the older generations of teachers were just taught different and teach how they were taught." (Millennial)</p> <p>"It is hard for me to connect with students, but I do not think it is necessarily all generational, but more personality based." (Generation X)</p>
Multigenerational Learning, Training, and Differentiated Instruction.	<p>"I find it hard to pay attention to PowerPoint, I learn more with hands on training, so far I have seen that this is not how it is done." (Millennial)</p> <p>"By teaching us via PowerPoint and not giving us the opportunity to practice in real time before we head to the classroom, we don't know if we are correct in our implementation or if we are doing it wrong." (Generation X)</p>
Changing, Elevating, and Sustaining Teacher Professional Development Experiences	<p>"Training should be hands on, content focused, and relevant to the teacher and their respective subject; that is what I would like to see." (Millennial)</p> <p>"I would like to see monthly training that is focused on specific content to my area of teaching, with feedback on how I am doing with the information being suggested to me. Right now, there is absolutely no feedback from anyone." (Generation X)</p>

Theme/Focus Group Question	Generation/Response
The Conundrum of Irrelevant Professional Development	<p>“I teach English, so the professional development offered is of that of the core classes in school, so I do see some benefit. But what is not helpful is the training itself.” (Millennial)</p> <p>“What I teach is an elective, not considered a core class, so there is no training specific to what I teach. All of the focus falls in the core class category to meet the needs of the state exams. I do get information on how to teach, but not how to teach my course content.” (Generation X)</p>
High Expectations and Mediocre Professional Development Support	<p>“I would expect the administration to provide more frequent and follow up professional development, not only in the summer, but throughout the school year. It is important to screen the teachers to ensure they are getting what they need in terms of support and learning.” (Millennial)</p> <p>“Right now, all of the information is just thrown out there with no follow up or set agenda for progression. I would like to see more frequent training session with follow up and support.” (Generation X)</p>

Analysis was an ongoing process during the data collection phase with both the individual interviews and the focus group. I wanted to be sure that the transcription of the data was in line with the research. According to Bailey (2008), in the transcription process it is the responsibility of the researcher to ensure that all sounds communicated during the data collection process are met with meaning. During the transcribing process, I was able to add in punctuation and remove words such as “Like” or “Um” and background noise that was captured in the audio that cluttered the data. During one of my individual interviews, the participant had her two-year-old child present. When transcribing that particular interview, I had to listen multiple times and translate manually as the transcribing software was not accurate and was difficult to understand.

I originally used Microsoft Word as my first step in transcription, and for an additional layer of quality control, I utilized a paid subscription to the transcribing service Otter. I compared the two platforms and found that Otter was more accurate. For the final transcription, I took the Otter document and then listened again to the audio of each interview and compared the data line by line.

Table 6 provides specific interview data outlining responses on the decisions made during the transcription process to add and remove verbiage that cluttered the data.

Table 6

Examples of Transcribing Decisions

Edited Response	Not Edited Response	Expressions Included	Expression Not Included
More time set aside for specific trainings, whether it is lesson plans, or you know, here is how you make generalized activities that you can customize and sit down with somebody and you know maybe they can help you work out something.	More time. Set aside for specific trainings. Whether it is lesson plans, or you know, here is how you make generalized activities that you can customize or here. Sit down with somebody and you know maybe they can help you work out something.	Um? Um? It being my second year here, my expectations are that it will not interfere with my ability to like Lesson plan, make calendars collaboratively work with my team in Precal and Algebra 2 in order to get like content done for my students.	It being my second year here, my expectations are that it will not interfere with my ability to lesson plan, make calendars collaboratively, and work with my team in Precal and Algebra 2 in order to get content done for my students.

Thematic Analysis and Findings

Interview Pattern Coding

Eleven transcripts obtained from the personal interviews were read and imported into NVivo qualitative data analysis software. Coding and analysis were conducted to answer the research questions. Coding is an analytical process in which data are established, sorted, and classified for full analysis. Codes depict the fundamental theory with the story of the research, and when arranged as one by a pattern, dynamically enable the growth of categories and the connections to the data (Saldana, 2013). According to Miles and Huberman (1994) “[t]here are “tags and labels for assigning units of meaning to the descriptive or inferential information compiled during a study” (p. 56). The coding process is described below.

Round One Coding

The interview transcripts were imported from Otter into NVivo for coding. The first review was a reading of all interview transcripts, which provided a preliminary coding scheme or a loose coding framework. The codes in the preliminary coding scheme were general and broad first-level codes that were later revised and refined in rounds two and three of the subsequent coding. The process of open coding was performed using line-by-line and sentence analysis. For example, one participant stated that there were training differences among the teachers. The NVivo code assigned to this segment of text was “training differences.”

Round Two Coding

Round two of coding involved multiple readings of each individual transcript, and open coding was again performed. Additional codes were created from the responses in the text by each participant, which were associated with the main codes created from the data of each individual source. The labels for the coding were designated using NVivo codes or words that participants stated in the individual interviews. All codes or labels from the data were created from a specific word or phrase from the coded sections of text. For example, one question asked of the participants was how did they learn best? One participant stated they learned best by taking notes during the training. The NVivo code assigned to this section of text was “taking notes.”

Round Three Coding

Round three of the coding was carried out to ensure NVivo codes were assigned properly and to remove any closely related codes. All codes were entered into an organized codebook for reference. A total of 221 codes emerged from the interview data. For example, when one

participant stated they learned best by doing an educational activity learned in training, the NVivo code assigned to this section of text was “by doing and experience.”

Final Round of Data Analysis

Using Saldana’s (2013) framework for coding, I used NVivo coding, which is defined as the “use of words or short phrases from the participants’ own language in the data record as codes” (p. 264). In this final step, I made the decision to look at the data and manually code. Following the NVivo process allowed me to thoroughly go through multiple reads of each transcript looking for key phrases and words from the participant responses. When the key words and phrases were found, I highlighted each one, using a different color highlighter for organization. As an additional step, I used reflection while writing analytic memos on the coding process. By doing this, I was able to document my process of analysis that led to codes, emergent patterns, categories, themes, and subthemes. Once this process was complete, I was able to take the information and continue with the identification of categories, themes, and subthemes. The identified codes were organized into 26 different categories, which were grouped by similarities to develop themes, with two subthemes, for each category. Eight emergent themes were developed from the data and were then consolidated into five final themes. Figure 4 outlines the structure of the five themes, and each subtheme related to the specific theme. Table 7 depicts the data from the consolidated themes, specific categories, and the actual number of words coded for each.

With the data analysis completed for this study, the findings addressed perceived relevance and teachers’ perceptions of their professional development, along with how working in a multigenerational environment impacts teachers’ learning. Data analysis results will also be

presented in this section, starting with the overarching research question, and followed by the sub questions outlined previously in Chapter 3.

Results

This study consisted of 11 total participants: three millennial, four Generation X, and four baby boomers. The main research question for this study asks, “What are the perceptions of teachers in a Central Texas high school of the effectiveness and relevance of their professional development in a multi-generational learning environment?” There were five sub research questions used to answer the primary research question. The sub research questions focused on

Figure 4

Final Themes and Subthemes

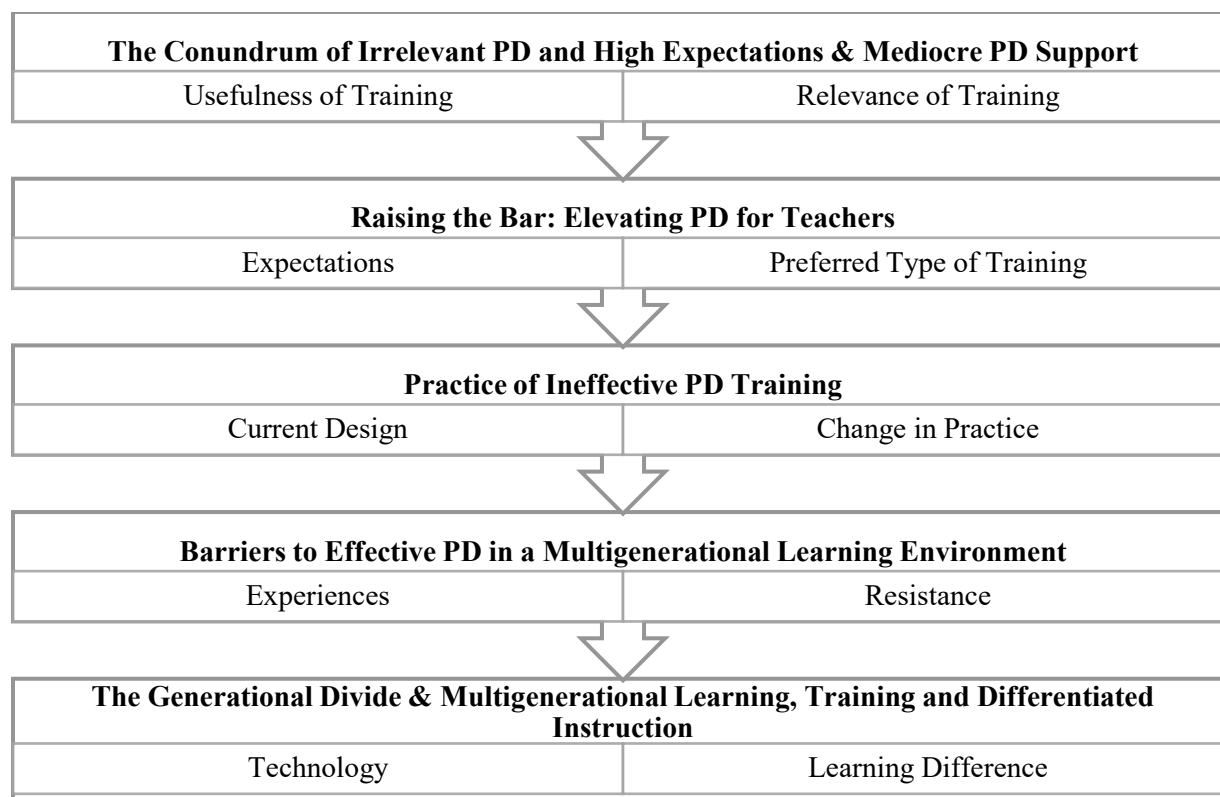


Table 7*Theme, Categories and Total Number of Words Coded*

Theme	Categories	Total # of Word Codes
The Conundrum of Irrelevant Professional Development and High Expectations and Mediocre Professional Development Support	Consistent Technology Issues	2,331
	First-year Teachers Lack Help	
	Irrelevant Blanket Training	
	Same Year-to-Year Training	
Raising the Bar: Elevating Professional Development for Teachers	Mentoring Program Implementation	1,848
	Training Needed by Department	
	Training Needed by Subjects	
	Teachers Attend External Trainings	
	Relevant Core Class Training	
The Practice of Ineffective Professional Development Training	Ineffective Technology	2,170
	Repetitious Training	
	Lack of Training and Instruction	
	Training Focuses on First-Year Teachers	
Barriers to Effective Professional Development in a Multigenerational Teaching Environment	Generational Stereotypes	1,799
	Training Not Differentiated	
	Technology Training Needed for Older Teachers	
	Tension Between Older and Younger Teachers	
The Generational Divide and Multigenerational Learning, Training, and Differentiated Instruction	Generational Training Differences and Preferences	4,736/4669 (9405)
	Generational Perceptions by Older and Younger Teachers	
	Younger Teachers Perceived as Technological Savvy	
	Generational Teaching and Educational Motivators	
	Training Not Differentiated	
	Training Aides Needed to Assist Learning	
	Virtual On-line Training Indoctrinated	
	Innovative Training Needed	
	Teacher Behavioral Issues and Interruptions	

Table 8

Theme Concluded From the Analysis of Interview Data, SRQ1: What are the Perceptions of Teachers of the Relevance of their Current Professional Development Activities?

Theme/Subtheme	Response/Generation/Subject Taught	
The Conundrum of Irrelevant Professional Development and High Expectations and Mediocre Professional Development Support	<p>Usefulness of Training</p> <p>“I personally have not gained a lot of information that I have used in my classroom.” (Millennial, Algebra)</p> <p>“It is like 50/50 useful. In my position, it is somewhat relevant, but we have professional development, that is for all teachers, and everybody has to participate. I cannot use it at all in my classroom. So right now, it is like 50/50 useful.” (Generation X, Foreign Language)</p> <p>“Professional development is like a spiral, administration just changes the name of the session, but it is basically the same material over and over again.” (Baby boomer, Foreign Language)</p>	<p>Relevance of Training</p> <p>“It is not what I expected, I definitely expected a lot more training and more information on the specific course that I teach, it just was not there.” (Millennial, English)</p> <p>“Most of the training and professional development was either a catch all or not relevant to my specific grade level and I found this very, very, frustrating.” (Generation X, World Geography)</p> <p>“My perception is what goes on in August before the school year starts and to me it is not relevant and it is repetitive, as I have received it in previous years.” (Baby boomer, Foreign Language).</p>

five main aspects, including perceptions, overall expectations, efficacy, barriers, and generational gaps. A total of five themes derived from the data are presented in Tables 8-12, which provide information on the responses from participants using direct quotes on the themes and subthemes. Participant information includes their specific generation and the subject matter they teach.

Individual responses to these questions uncovered the theme, The Conundrum of Irrelevant Professional Development and High Expectations and Mediocre Professional Development Support, with subthemes of Usefulness of Training and Relevance of Training, all outlined in Table 8.

Usefulness of Training

The interviews provided specific data on teachers' perceptions with regard to the usefulness of professional development. Two of the three millennials stated that current professional development had not been useful, and that they had not had an opportunity to use what they were being taught in their classrooms. Generation X participants felt as if there was some important information being provided, with one participant stating that the training was "50/50 useful." Two of the four Generation X participants felt as if the professional development was not geared towards specific courses and teachers. There was the feeling among participants that much of what was being taught was not applicable to their respective course content. Three of the four baby boomers felt as if the administration merely recycled the training by renaming the topics being taught. The material was the same as in previous years and for those teachers that were not new, there was no usefulness in the material being taught.

Relevance of Training

Relevance of professional development was another subtheme that surfaced during the individual interviews from all three generations. All three millennials stated their concern about their expectations not being met. More training was needed, with a concentration on specific course content around what teachers are required to teach. Two of the four Generation X participants voiced much of the same frustrations as the millennials. The difference was that Generation X participants expressed more frustration in the lack of training and teaching to specific grade levels. It was felt that the content was geared to only beginner teachers and the lower grades, such as freshman and sophomore. Three of the four baby boomers voiced much the same as the other two generations in the interviews. There were many participant interviews that voiced concern over irrelevant training and repetition from previous years.

Individual responses to these questions uncovered the theme, Raising the Bar: Elevating Professional Development for Teachers, with subthemes of Expectations and Preferred Types of Trainings, all outlined in Table 9.

Expectations

Elevating professional development for teachers was another subtheme that was presented during the interviews. All of the millennials brought attention to an expectation of classroom practicality, concerned that the professional development that was being presented was not to a level that could be used in an actual classroom setting. When they compared their experiences in other schools where they taught, there the feeling that the reason for professional development was to aid all teachers to better themselves in the classroom setting. Two of the three Generation X participants felt that the professional development provided should consist of material that provided for teacher development and allowed the teachers to become more well-rounded. One voiced that this has not occurred in ten years. Three of the four baby boomers expressed the need to incorporate more hands-on learning into the facilitation of professional development.

Preferred Type of Training

Teaching can be done in many ways, but according to the interviews, all three generations voiced their preference for training that would benefit them. Two of the three millennials felt that the training was focused solely on long lectures and PowerPoint presentations, which was not beneficial, and it was suggested that the alternative would be to allow for collaboration with other teachers who taught in the same department. Three of the four Generation X participants agreed with the millennial group, with much of the same preferences. The limitations of lectured learning were repeated, along with the wish to see more specific

training in different areas of instruction and more hands-on activities. All four baby boomers were looking for more instruction on how to implement the new hybrid approach to teaching. Interviews showed that the lack of training on new software and training platforms, such as Zoom and Teams, is needed for the baby boomers to effectively do their jobs. With COVID, this has become an important requirement.

Table 9

Theme Concluded From the Analysis of Interview Data, SRQ2: What are the Overall Expectations of High School Teachers who Participate in Professional Development?

Theme/Subtheme	Response/Generation/Subject Taught	
Raising the Bar: Elevating Professional Development for Teachers	Expectations	Preferred Type of Training
	<p>“My expectation going into it, having worked at lots of private schools and one public school, was that whatever professional development I would be given would be something that I would be able to practically use in my classroom.” (Millennial, Aquatic Science)</p> <p>“Professional development should be geared to develop and become more well-rounded as educators and most of it has not been that in my 10 years.” (Generation X, Foreign Language)</p> <p>A lot more hands on and less explaining and lecture.” (Baby boomer, Foreign Language)</p>	<p>“The administration here expects you to sit through long lectures, where that is not beneficial. It would be more beneficial to collaborate with other teachers in my subject area.” (Millennial, English)</p> <p>“It would be great if we were taught more specific content in our age group. Right now, learning is all lecture, with no hands-on activities specific to my area of instruction.” (Generation X, English)</p> <p>“I am hoping for more instruction on how to create and adapt in a hybrid learning environment, right now without that, my job is much more difficult.” (Baby boomer, Aquatic Science)</p>

Individual responses to these questions uncovered the theme, The Practice of Ineffective Professional Development Training Raising the Bar, with themes of Current Design and Change in Practice, all outlined in Table 10.

Current Design

Interview questions inquired about the current design of professional development for participants. Two of the three millennials felt that the current design had not been set up to teach new material or initiatives, with training more geared to updated school policies and information that was not relevant in the professional development setting. The need for the separation of school policy training and professional development was encouraged. All four Generation X participants felt that there was too much PowerPoint in the facilitation of training. They stated that having hands-on training and activities was needed in the current design and facilitation of professional development. Two of the four baby boomers felt the same as the millennial and Generation X participants. There was a voiced concern on the use of PowerPoint and the lack of hands-on training. The importance of hands-on practice is needed in order to grow and learn in the teaching environment.

Individual responses to these questions uncovered the theme, The Practice of Ineffective Professional Development Training Raising the Bar, with themes of Current Design and Change in Practice, all outlined in Table 10.

Change in Practice

With all three generations, there was a concern about the current practice of professional development teaching, and all participants provided insight on what changes would be helpful for their learning. All three millennials felt that there was a need for teacher involvement during the facilitation of training, not just a lecture. The interviews showed a need for training on real-life classroom situations and real-time discussions. All four Generation X participants said that the use of hands-on training was critical for effective learning. The ability to demonstrate in real time what was just learned and to have the ability to obtain feedback was important to improved

classroom instruction. Two of the four baby boomers would like the training to be more content focused and taught at a slower pace. Training is rushed, and facilitators do not take the time to explain and answer questions or provide handouts to follow along with the lectures.

Individual responses to these questions uncovered the theme, Barriers to Effective Professional Development, with Subthemes of Experiences and Resistance, all outlined in Table 11.

Table 10

Theme Concluded From the Analysis of Interview Data, SRQ3: How do Teachers Perceive the Efficacy of Their Current Professional Development Methods?

Theme/Subtheme	Response/Generation/Subject Taught	
The Practice of Ineffective Professional Development Training	Current Design	Change in Practice
	<p>“I feel like the design of our professional development is not to teach us new things, but to give us updated policy and non-relevant information.” (Millennial, Algebra)</p> <p>“Some things can be done in a PowerPoint, some things can be done in a lecture format, some things need hands on and right now, there is no hands on. So, the effectiveness at this moment is not very effective.” (Generation X, English)</p> <p>“It is just simply PowerPoint presentations, we’re being rushed through each presentation and unfortunately, there is very little to no hands on for us to actually practice some of the new things.” (Baby boomer, Foreign Language)</p>	<p>“If I am not involved in the training, I find myself distracted and shut down. I need the professional development to be hands on. I need real life classroom situations and real-life discussions.” (Millennial, Aquatic Science)</p> <p>“We get a lot of PowerPoint, I need more hands-on training. I need to see how things are actually done. You know, let me try it, critique me, and let me know what I need to do better. Right now, all I get is information, with no feedback.” (Generation X, Aquatic Science)</p> <p>“Training needs to be content focused and at a pace where everyone can learn. Right now, the facilitators go to fast and do not provide any handouts, I just cannot keep up.” (Baby boomer, World Geography)</p>

Table 11

Theme Concluded From the Analysis of Interview Data, SRQ4: Are There Perceived Barriers to Teachers' Professional Development When it Comes to Multigenerational Learning Environments.

Theme/Subtheme	Response/Generation/Subject Taught	
Barriers to Effective Professional Development in a Multigenerational Teaching Environment	Experiences	Resistance
	<p>"Yes, 100%. The school does not differentiate the content being taught. All of us are in one room, some know the content, and some do not, but for those who do, it is a waste of time." (Millennial, Algebra)</p> <p>"I love working in a multi-generational environment, I just wish the administration would tailor the professional development to ensure that the benefits are there for all of the teachers. Right now, I feel that the way we are all being taught, is not beneficial for anyone." (Generation X, World Geography)</p> <p>"I am just bored. I am eager to learn, but I am not willing to engage in material that has been taught to me over and over again, year after year. I want to be exposed to new initiatives to help be relevant as a teacher." (Baby boomer, Foreign Language)</p>	<p>"I think it would be just the experience, like there are some teachers who sit in professional development, and they are like, I know this, I have tried it; it does not work. So, I am just going to be here because I have to be here." (Millennial, English)</p> <p>"I think sometimes there have been people that have been in for a long time, they kind of dig their heels in, or they do not want to learn something new." (Generation X, Foreign Language)</p> <p>"There is an attitude that is a barrier and that is we are going to do it the same way we have always done and that is what we want to do." (Baby boomer, Aquatic Science)</p>

Experiences

Working in a multigeneration work environment was another focus of this research project. During the interviews, participants were asked about their feelings on working in a multigenerational environment, and many significant barriers to professional development learning emerged. One subtheme that emerged during this line of questioning was personal experiences. One of the three millennials felt that there was not a focus by administration on differentiating the material that was being taught, that all teachers were in one room and one setting, and that they were all being taught the same thing. There was a need expressed to

provide relevant training to each teacher, which would not be repetitive for the others. Three of the four Generation X participants hoped that the administration would provide tailored professional development to teachers that would be relative to their teaching experience and to the course that they teach. All four baby boomers voiced feelings of boredom and frustration over being taught the same material over again. There was a feeling of wanting the training to be relevant, with new initiatives.

Table 12

Theme Concluded From the Analysis of Interview Data, SRQ5. How Does Working in a Multi-Generational Learning Environment Impact Professional Development Training?

Theme/Subtheme	Response/Generation/Subject Taught	
The Generational Divide and Multigenerational Learning, Training & Differentiated Instruction	Technology	Resistance
	<p>“There is a big difference in like technological, with the older teachers, a lot of them are less technologically, they do not know how to navigate a computer.” (Millennial, Aquatic Science)</p> <p>“The newer teachers coming in show more flashy ways of teaching, specifically with the use of technology. They grew up using technology, I didn’t and that makes a difference not only with teaching, but with how training is facilitated.” (Generation X, English)</p> <p>“The younger generation adapts more to the technology changes, it is what they are used to, whereas the older generation finds it more challenging to adapt to the rapid changes.” (Baby boomer, Foreign Language)</p>	<p>“I personally do not learn well from someone just talking to me for hours, my attention span does not last, and I find myself checking out. The fact that our administration still uses this form of teaching teachers shows a lack of creativity and lack of involvement with our leadership.” (Millennial, Algebra)</p> <p>“There are generational differences and the strategies of which those teachers use is different. Because we teach the way we learn and some teachers are adaptive, and some teachers are not.” (Generation X, World Geography)</p> <p>“Learn best by listening to lectures, taking notes...I am old school, this is how I learn, and it has always been how I learn.” (Baby boomer, Foreign Language)</p>

Resistance

A subtheme that was found while analyzing the data was the notion of resistance. Millennials stated that one big difference in learning in a multi-generational environment was the resistance among both Generation X and baby boomers. Interviews indicated that it was perceived by all three of the millennials that the older generation were resistant when it comes to learning new ideas and initiatives, and that they just go through the motions and are not engaged in the establishment of new ideas and collaboration. Older teachers were described in millennial interviews as “set in their ways” and will teach “the same way” as they have always taught. A huge difference with the generations was the willingness to engage in new teaching strategies. Millennials expressed an interest in learning new strategies, where the older teachers expressed a disinterest in “learning something new.” All of the baby boomers felt as if the way they teach was just as relevant as the teaching of all the other teachers on campus. Two of the four Generation X participants spoke about the baby boomers and their unwillingness to change and learn new methods of teaching, but the baby boomers felt that the way they teach was also relevant and felt that there was not a need to change the teaching methods they have used since starting their teaching journey.

Individual responses to these questions uncovered the theme, The Generational Divide and Multigenerational Learning, Training and Differentiated Instruction, with subthemes of Technology and Learning Difference, outlined in Table 12.

Technology

Another theme that was expressed during the interview process was the use of technology and its barriers. Two of the three millennials expressed the concern that there was a “big difference” in the use of technology among older teachers. Millennials expressed concern about

their lack of knowledge on the use of computers and software specific to the school's learning platforms. One millennial actually became very vocal during the interview, stating that she spends many hours a week helping an older teacher across the hall with her computer and attempting to teach the basics of the software. During the interviews, three of the four Generation X participants did acknowledge that the use of technology was important but said that the millennials have an advantage because they grew up using technology, whereas Generation X and baby boomers did not. All of the baby boomers agreed with the Generation X participants, acknowledging that millennials are more familiar with technology, but still expressed their feelings of frustration on adapting to all of the rapid changes, with limited education and training on those changes.

Learning Differences

That everyone learns with different methods and different tools was another subtheme that surfaced from the data. The generational learning environment is unique in the fact that there are so many ways to be taught and learn. Among the participants in this research, that was also the case. Two of the three millennials voiced their concern about long lectures and having limited attentions spans. There was an importance expressed about engagement and active learning in the facilitation of professional development. Three of the four Generation X participants also recognized the generational differences and felt that each adult taught the way they learn. Some adapt and others do not, and finding the middle ground was what can make the difference. Three of the four baby boomers still had some preference for learning the traditional way, using lectures and taking notes, with one even reporting that they are still "old-school" in their learning.

Additional Findings

It is important to address the fact that not all of the feedback from the participants was negative when discussing their perceptions of professional development. Table 13 outlines participant quotes broken down by interview question, generation, subject taught, and years of experience.

In times of COVID, the district has started to offer more online opportunities for professional development. There is an overall agreement that the online sessions are helpful, but do not replace in-person professional development. There was an overall consensus that working in a multigenerational environment was a positive experience.

Unusual Circumstances

When I completed my research proposal for this study, COVID-19 was not yet in existence. I did not consider the implication of teachers' responses to my questions about professional development in relation to how COVID-19 has impacted their experiences. It was only after the first interview that COVID-19 came to the front of the conversations when participants responded to my questions. To mitigate this, I kept the questions written as they were, but if COVID-19 came up, I asked a follow-up question to clarify how COVID-19 has impacted the participants' experiences. There was no considerable data to report on this issue from that first interview.

Table 13*Positive Feedback From Participants*

Interview Question	Quote	Generation	Subject	Years of Experience
What do you feel is the relevancy of the current professional development you receive?	“For the most part, there is a good mix of training provided, but it is provided online.”	Baby boomer	Aquatic Science	13
What do you feel is the relevancy of the current professional development you receive?	“I do like that I am able to complete professional development on my own time, and in an online session, that means a lot to me.”	Millennial	Algebra	6
How do you perceive the effectiveness of the methods used to facilitate professional development?	“The district is really good about providing online instruction if you want it. There is a better mix of variety, but not enough for my subject.”	Baby boomer	Foreign Language	19
How do you feel about working in a multigeneration learning environment?	“I love it, I feel that we are all able to profit from one another’s experiences.”	Generation X	Foreign Language	8
How do you feel about working in a multigeneration learning environment?	“I do not feel that there is an issue working in a multigenerational environment, it is nice to be able to have a variety of teachers to learn from.”	Baby boomer	World Geography	3
How do you feel about working in a multigeneration learning environment?	“I personally like it, my teaching partner is older than me and I like benefitting from her experience. We help each other.”	Millennial	Aquatic Science	2

Summary

This chapter provided comprehensive accounts by the participants, the data collection procedure, and the results from the study, with the main focus on how the teachers in a high school in Central Texas perceive the effectiveness and relevance of their professional development in a multi-generational learning environment. Evaluating the data, research participants indicated that teachers from each generation expressed concern over the relevance and effectiveness of the professional development that was received at their high school. There was evidence that the three generations have similarities and differences in their relationships with each other, with their perceptions of learning, and with what training was being provided to them. Technology also posed an issue when considering the multigenerational learning environment among the three generations.

SRQ 1: What are the Perceptions of Teachers of the Relevance of their Current Professional Development Activities?

Data collected for sub research question one revealed two subthemes, Usefulness of Training, and Relevance of Training. All of the participants voiced concern over the professional development that they received. There was an overarching consensus that expectations were not being met and that there was a minimal amount of usefulness of the material being provided for the teachers.

SRQ 2: What are the Overall Expectations of High School Teachers Who Participate in Professional Development?

Data collected for sub research question two revealed two subthemes, Expectations, and Preferred Types of Trainings. Many of the participants voiced concern that the school and administration did not meet their needs in relation to professional development training. The

training being provided was not in line with what the participants would like to see as their preferred method of training, which consisted of more hands-on activities and interactive training.

SRQ 3: How do Teachers Perceive the Efficacy of their Current Professional Development Methods?

Data collected from sub research question three revealed two subthemes, Current Design, and Change in Practice. Many of the participants felt as if the current design required restructuring. The majority of the training was facilitated by PowerPoint and that was not what meets the needs of the teachers. A change in practice was desired by the majority of participants. There was an overall need for the training to be engaging, inclusive, and more informative.

SRQ 4: Are there Perceived Barriers to Teachers' Professional Development when it comes to Multigenerational Learning Environments?

Data collected from sub research question four revealed two subthemes, Experiences and Resistance. This question focused on the barriers to learning in a multigenerational learning environment. All three generations felt that their own experiences showed that working in a multigenerational work environment impacted their learning, specifically in relation to professional development. Even though there were positives to working within three generations, the administration did not provide the tools for all to receive the development they would like to see. With regard to resistance, all of the millennials made remarks on how both the Generation X and baby boomer teachers showed resistance and lack of interest while participating in the training.

SRQ 5: How Does Working in a Multi-generational Learning Environment Impact Professional Development Training?

Data collected from sub research question five revealed two subthemes, Technology and Learning Differences. The use of technology was a big concern for millennials when it came to both Generation X and baby boomers. Millennials found themselves taking time out of their schedule to teach the older teachers new technology and learning platforms, as the administration did not provide this training. Each teacher expressed his or her own preference for learning approaches. Responses were consistent among all generations, and all agreed that learning was best done with engagement and interaction.

Chapter 5: Discussion, Conclusions, and Recommendations

This study emerged as a result of my own experiences with professional development. Research in the field of education and high school teachers was chosen because of the relationship to the chosen high school. I understood that there was a need to look into how professional development was facilitated, along with the need to focus on the multi-generational learning environment that existed at the high school. Chapter 5 discusses significant findings, implications, limitations, and recommendations for future research. The findings of the study provided valuable insight into Central Texas high school teachers and their perceptions of the effectiveness of professional development, possible barriers to learning, and how being part of a multi-generational learning environment impacts best practices in their professional development.

Problem Statement

Lack of Relevant Professional Development

Over the past 20-plus years, there have been multiple initiatives on education reform that have placed a significant focus on teachers and their professional development (Gregson & Sturko, 2007; Xhomara & Treska, 2017). Even with the reforms set in place, research shows that there remains a lack of relevance in teacher professional development.

Poor Facilitation of Professional Development

Gokmenoglu and Clark (2015) explain that the majority of professional development being provided to teachers is not facilitated in the way that they learn best, or even directed at their individual skill sets. Gregson and Sturko (2007) and Fincher (2016) agree and acknowledge that the implementation of professional development is often in the form of in-service sessions,

workshops, and seminars, and is not geared toward the subject matter being taught and teachers' experience level. Professional development is often facilitated in a one-size-fits-all model.

Gap in Literature Regarding Multigenerational Learning Environments

Through a review of the literature, there are two facts currently known: the first is that every high school teacher is provided some form of professional development, and the second is that high school teachers work in a multigenerational environment. However, what is not known is whether there is a difference in how teachers from different generations perceive the professional development they receive.

Gap in Research on Teachers' Perceptions of Professional Development

Another gap in the literature relates to understanding the experience of the teachers themselves (McCray, 2016; Shakman & Rodriguez, 2015).

Statement of Purpose

This qualitative instrumental case study focused on teachers' perceptions of possible barriers, how being part of a multi-generational learning environment impacts best practices in their professional development, and teachers' voices on how to design more effective professional development programs.

Research Questions and Methods

The study was based on one main research question, with five sub questions:

RQ: What are the perceptions of teachers in a Central Texas high school of the effectiveness and relevance of their professional development in a multi-generational learning environment?

SRQ 1: What are the perceptions of teachers of the relevance of their current professional development activities?

SRQ 2: What are the overall expectations of high school teachers who participate in professional development?

SRQ 3: How do teachers perceive the efficacy of their current professional development methods?

SRQ 4: Are there perceived barriers to teachers' professional development when it comes to multigenerational learning environments?

SRQ 5: How does working in a multi-generational learning environment impact professional development training?

I used a qualitative instrumental case study approach to answer the research questions, which included individual interviews and a focus group, with a total of eleven participants who were all high school teachers. I also focused on generations present among these eleven participants. The breakdown of the participants included three millennials, four Generation X, and four baby boomers. All individual interviews and the focus group were conducted using the Zoom platform, recorded, and transcribed verbatim using both Microsoft word and the software Otter. NVivo software was utilized to analyze and manage all of the data collected. Data analysis was completed by using various levels of coding, to include NVivo coding, followed by deriving multiple categories and theme development (Saldana, 2009, 2013).

Discussion of Findings

RQ: What are the Perceptions of Teachers in a Central Texas High School of the Effectiveness and Relevance of their Professional Development in a Multi-generational Learning Environment?

The main findings from this research consider how teachers at a high school in Central Texas perceived not only the professional development they received, but also how they felt

about working in a multigenerational learning environment. There were three main findings that answer the overarching research question.

Finding 1. The majority of teachers felt that the professional development provided was not deemed to be beneficial, relevant, or effective. Participants felt that the professional development lacked organization, structure, and relevance to their respective role as a teacher.

Finding 2. The majority of teachers described their need for more hands-on and interactive training and collaboration, not just PowerPoint and lecture. There was no reported difference in learning styles between the three generations.

Finding 3. There were two reported differences among the millennial group with reference to the teachers who fell into Generation X and the baby boomer generation. Millennials reported a difference in the use of technology among the participants. They also reported that there was a disconnect in attitude between them and the baby boomer and Generation X teachers on campus.

To answer the overarching research question, there were also five sub research questions that were used to gain an understanding into the perceptions of teachers at the Central Texas high school.

SRQ 1: What are the Perceptions of Teachers of the Relevance of Their Current Professional Development Activities?

To answer the first sub research question, each participant of the study was asked about their experiences with their current professional development practices. Participants discussed their expectations, with participants from each generation voicing the need for classroom practicality, hands-on learning, and relevance to their respective classroom responsibilities with regard to teaching. These expectations align with the research of Patton et al. (2015) and

Xhomara and Teska (2017) and their discussion of the eight core features required for professional development: needs/interests, social process, collaborative, ongoing/sustained, active, development of skills, facilitation with individuality, and student learning improvement. Findings from this study also support research from Darling-Hammond et al. (2017), which outlines the three main components to effective professional development as content focused, active learning, and collaboration. The focus on content was a highly voiced concern for the participants of this study.

Current professional development does not provide specific content material for the respective subject that is being taught by each participant. Current research from multiple researchers discusses the importance of this issue. Professional development provided to teachers requires focus on the content associated and linked to their classroom subject and curriculum (Darling-Hammond et al., 2017; Desimone & Pak, 2017; Haug & Mork, 2021; Morgan & Bates, 2018; Powell & Bodur, 2018). Participants also included the importance of hands-on practice and collaboration. Darling-Hammond et al. (2017) and Hang & Mork (2021) support these findings in their research on active learning and collaboration. Active learning requires teachers to be engaged, with the ability to use what is learned in their classroom instruction. Collaboration is also important to allow teachers to have a platform to share ideas and learn from one another, which can result in positive change within classroom instruction and the overall teaching environment (Darling-Hammond, 2017; Hang & Mork, 2021). In addition, a study conducted in 2012 by Met Life on teacher satisfaction showed that there was a 23% decline in teacher satisfaction in 2008, which was recorded as the lowest in 25 years. One the reasons given for the decline was the poor facilitation of professional development and lack of collaboration (Markow et al., 2013).

SRQ 2: What are the Overall Expectations of High School Teachers Who Participate in Professional Development?

The second sub research question was an attempt to gain knowledge of the expectations of teachers on how they would like to see their professional development administered. Participants from each generation agreed and shared similar concerns. They felt that the current training was not useful and is outdated, lacks follow-up and real time feedback, is repetitive, and that content is not useful to their teaching practices in the classroom setting. These expectations align with Porter et al.'s (2003) research that states the goal of professional development is to provide three core concepts: active learning, content, and coherence. According to the participants in this study, current professional development does not meet any of these.

More recent research from Desimone and Pak (2017) discusses the option of instructional coaches. Instructional coaching allows teachers to work one on one or within a subject department with a coach who provides professional development in specific subject areas. Coaching also focuses on lesson planning and navigation of the ever-changing academic standards that teachers are faced with. Coaching allows for real-time discussion and feedback to teachers, which in turn can result in effective professional development (Desimone et al., 2003; Desimone & Garet, 2015; Desimone & Pak, 2017; Desimone & Stuckey, 2014). Implementing this form of professional development would assist teachers in meeting their expectations in professional development learning.

SRQ 3: How do Teachers Perceive the Efficacy of Their Current Professional Development Methods?

In order to gain an understanding on the current effectiveness of professional development at the Central Texas high school, participants were asked about their thoughts on

professional development effectiveness. Participants in each generation voiced concern over current design and practice in the teaching of professional development. Participants stated that there needs to be a change in the current professional development curriculum, which is facilitated via PowerPoint and lecture with little to no hands-on practice or active learning. The concerns voiced by the participants align with Malcolm Knowles' adult learning theory. Knowles' (1980) outlines five assumptions about adult learners: ready to learn, make choices on their own experiences, motivated to learn, understand their own self concepts, and oriented to learn. Knowles believes that adult learners will learn best when the material makes a direct and relevant impact.

Powell and Bodur (2018) support adult learning theory in a qualitative research study with six high school teachers in a medium-sized high school in the southeast part of the United States. This study examined teachers' perceptions of the design and application of the school's online professional development training, using six themes: relevancy, authenticity, usefulness, collaboration, reflection, and content. Their findings support the participant voices in this study by validating the findings to include concerns on current design, practice, active leaning, and hands-on practice. Powell and Bodur support the notion that professional development is not a one-size-fits-all practice. Additionally, they support the suggestions reiterated in adult learning theory that teachers' experience and relevance to content is important to ensure effective professional development.

Participants in this study felt that professional development teaching practice needs teacher collaboration activities, more specific content focus, and interactive activities. At the current time, there is no mention of this type of training being utilized. One participant described the content as being "rushed" with little time for "explanation and questions." The goal of years

of education reform and the ongoing change to professional development are meant to increase teacher learning and, ultimately, student success. Professional development facilitation has to be meaningful and engaging. For professional development to be effective the adult learner must be actively engaged (Mitchell, 2013; Darling-Hammond et al., 2017; Garet et al., 2001; Haug & Mork, 2021).

SRQ 4 and SRQ 5: Are There Perceived Barriers to Teachers' Professional Development When it Comes to Multi-generational Learning Environments and How Does That Impact Professional Development Training?

Sub research questions four and five both examine the issues of barriers and the impacts of teachers' experience while working in a multigenerational learning environment. Participants in each generation voiced concerns in three areas: experiences, resistance, and technology. Data obtained from the millennial participants detailed their feelings that Generation X and baby boomers exhibited resistance to learning material and technology programs. These responses showed that there was a disconnect between the teachers in this multigenerational learning environment. To mitigate this gap, it is important for administrators to provide training that meets needs from all generational perspectives (Holyoke & Larson, 2009).

Lai and Hong's (2015) study, focused on determining if there were any differences in learning with the use of digital technology, supported the participants' voices in this study. Lai and Hong's study consisted of over 800 participants who were placed in three age groups to include under 20, 20-30, and over 30. A Likert scale was used, with ten components that included digital literacy, connectedness, multi-tasking, partiality for experiential learning, partiality for group work, partiality for images over text, need for structure in learning/goal oriented, social need, need for immediacy, and community focused (Lai & Hong, 2015).

Lai and Hong's (2015) study outlined both what the participants had in common and what differences they had. Findings on what the participants had in common indicated that 90% of participants prefer learning by exploration, 78% prefer learning by doing, 74% prefer learning via images, video, and other multi-media elements over text, and 54% prefer not to learn by being provided large amounts of text passages. Findings on the differences among the participants included the use of digital technology tools offered by the university. Six tools were outlined, including laptops, internet, Google, iPod, Facebook, and cell phones. The study showed that the three groups used these technologies in different ways, both in their everyday life and in relation to the school environment (Lai & Hong, 2015). These findings were comparable to the findings by Holyoke and Larson (2009) that the three generations of adult learners in their study learned best by making personal connections to the materials, discussed in Chapter 2.

Participants in the millennial group voiced their concern in relation to resistances of both Generation X and baby boomer teachers. Research conducted by Ashraf (2018) outlined five techniques that can be used to bridge the gap between generations: focus on individual goals and expectations; provide structure for team work and mentoring; break the bonds of tradition, change up the training; provide teachers with the plan for change and ask for feedback; and encourage team building, allowing for all teachers to get to know each other on a personal level.

A study carried out by Culp-Roche et al. (2020) looked at online learning and the use of technology in the wake of the COVID-19 pandemic. The qualitative study focused on four generations (baby boomers, Generation X, Generation Y, and Generation Z, which can be compared to millennials.) with a further focus on the three elements of incorporation of technology, opinions on technology, and ease of use with technology. The study found that there was no significant difference by generation with the incorporation of online courses using

technology, and with participant opinions. However, participants in the Generation X and baby boomer groups reported less ease of use with technology and higher levels of anxiety using technology than did individuals from Generation Y.

Since COVID, the majority of the professional development offered at the site of my study was through online classes. There was a mix of feelings with regard to the online courses; one millennial participant stated, “I do like that I am able to complete professional development on my own time, and in an online session, that means a lot to me,” while a participant from the baby boomer generation stated “The district is really good about providing online instruction if you want it. There is a better mix of variety, but not enough for my subject.” In order to assist teachers in the Central Texas high school to obtain effective and relevant professional development programs, the generational gap within the school needs to be addressed.

Findings Related to Conceptual Framework

The research questions and data analysis used both adult learning theory, to include andragogy, transformative and experiential learning, and generational theory in the design to identify teachers’ perceptions of the effectiveness and relevance of their ongoing professional development.

Adult Learning Theory/Andragogy

An essential aspect of maturing is developing the ability to take increasing responsibility for our own lives – to become increasingly self-directed.

—Malcom Knowles (1975, p. 15)

Andragogy, transformative, and experiential learning theories provided the framework to determine the research questions and discussions. Based on the findings in this study, teachers’ perceptions of professional development outlined their need for collaboration, hands-on training, and consideration of teacher experience levels, which supports the need for the practice of

andragogy standards. According to Knowles (1980), andragogy is defined as the teaching of adult learners based on the learner's self-concept, experience, readiness to learn, orientation to learn, and motivation to learn. It is imperative that adult learners be involved with their individual process of learning and planning of their own professional development.

In addition, according to the data, teachers expect to have follow up and real-time feedback after the facilitation of professional development sessions to allow for continued evaluation and improvement. The perceptions of professional development among the teachers in this study represent the importance of following the research of Knowles (1980) on adult learners. To improve current professional development, it is essential that administration employ the assumptions of andragogy to ensure teachers gain the most out of the learning experiences they receive (McCray, 2016).

Experiential Learning Theory

In the process of living, attainment of a period of equilibrium is at the same time the initiation of a new relation to the environment, one that brings with it potency of new adjustments to be made through struggle

—John Dewey (1934, p.17)

Findings from the data outline the importance of experiential learning, which focuses on the experience and hands-on practice utilizing that experience. Dewey's theories support this with his conceptual model that provides details on real-life experiences as a starting point for adult learners (Roberts, 2003). Dewey also developed instrumentalism, which is defined in education as learning by hands-on practice and involvement of one's own learning experiences (Ord, 2012). The teachers' perceptions of professional development in my study aligned strongly with the research conducted by both Knowles (1980) and Dewey in reference to adult learners. All of the participants in the study referred to the fact that the majority of the current professional development they received was lecture and Power Point based, with limited to no hands-on

activities or reflection on what was being taught. Experiential learning can be compared to professional development, as the act of learning is geared to the process of change (Girvan et al., 2016).

Kolb (2014) defines learning as “the process whereby knowledge is created through a transformation of experience” (p. 49). Girvan et al. (2016) used workshops, individual interviews, and group interviews to engage teachers using the model outlined in Figure 5. Results from the study indicate that teachers reported feeling encouraged with the ability to be comfortable with sharing experiences, reflecting, and working in a collaborative environment (Girvan et al., 2016). This supports the need expressed by a millennial participant who stated that “[t]he administration here expects you to sit through long lectures, where that is not beneficial. It would be more beneficial to collaborate with other teachers in my subject area.” Given this finding in both studies, there is a need to alter professional development methods that can provide both increased satisfaction in teacher professional development and overall student success.

Transformative Learning Theory

Transformative learning is “learning that transforms problematic frames of reference—sets of fixed assumptions and expectations (habits of mind, meaning perspectives, mindsets)—to make them more inclusive, discriminating, open, reflective, and emotionally able to change.”

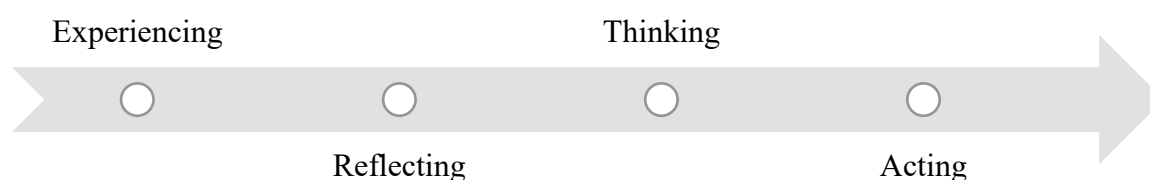
—Jack Mezirow (2003, p. 58)

Jack Mezirow (1991) introduced his own theory of transformative learning in connection with adult learning. According to Mezirow, transformative learning theory explains how adult learners understand their own experiences and how social or environmental factors influence that experience. Each individual learner has his/her own view of the world and how their view is important within their learning (Christie et al., 2015). Within the findings of the data in this

study, teachers voiced concerns with learning differences and experiences within their own professional development. Teachers stated their need for professional development to not only meet their expectations but to meet the need for professional development to help them to reach their goals and learning objectives and support their growth as teachers.

Figure 5

Transformative Learning Process

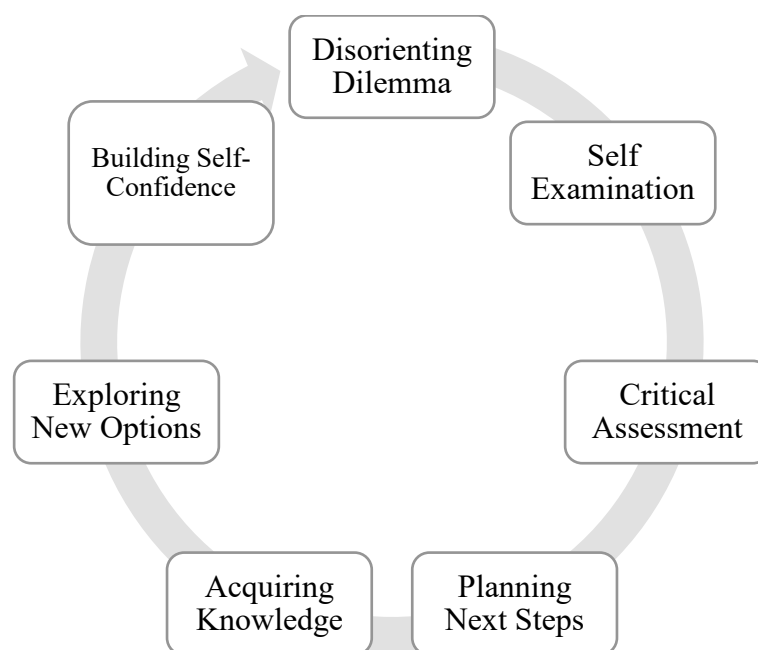


Working in a multigenerational learning environment, there are many opportunities to bring in each individual's own work and life experiences. The study site where the research was facilitated has teachers working alongside each other, ranging in ages from 21-80 years old. Findings within the data showed participants had limited opportunity to work in a collaborative environment. Research on transformative learning shows that providing an opportunity for collaboration and sharing of experiences could allow for a positive change in professional learning (Steyn, 2017).

Research facilitated by Cox (2015), Desimone and Pak (2017), Desimone and Stuckey (2014), Desimone et al. (2003) and Desimone and Garet (2015) discusses the importance of coaching and its connection to adult learning theory, including transformative learning. The concept of coaching was discussed when answering sub research question number two, asking participants about their expectations of current professional development. According to Cox

(2015), there is a connection between adult learning and coaching that is important to the theory of transformative learning. The connection relates to the shift in thinking and change in learning related to experiences. Mezirow (1991) used the example of the disorientating dilemma, which can be explained as a situation where a learner finds that what they thought or believed in the past may not be accurate (Roberts, 2006). This leads to additional phases of transformation to include self-examination, critical assessment of assumptions, planning the next steps, acquisition of knowledge, exploring new options, and building self-confidence (Roberts 2006). Figure 6 provides a visual on the cycle of transformative learning and how the learning process evolves with each individual experience.

In this study, all generations voiced their need for a change in practice in their current professional development. Change can be both exciting and frightening, depending on the learner's level of experience, age, personality, and personal life circumstances. Recent research by Chew Lee et al. (2021) discusses the recent COVID-19 pandemic and the transformative shift in learning for teachers. The immediate requirement on the use of technology in teaching provided a stressful environment to teachers across the world, specifically with the teacher participants in this study. The differences in the level of comfort in the use of technology among the three generations was a key finding in this study. Research from Teo et al. (2021) supports this finding in stating that "less skillful and less resourced teachers would consider such online teaching and learning daunting; for the savvy teachers, the creativity was channeled into replicating classroom interaction (p.4)." The disruption of COVID-19 provided the perfect opportunity for a disorienting dilemma aligning with the opportunity for transformative learning.

Figure 6*Cycle of Transformative Learning****Generational Theory***

Education is our greatest opportunity to give an irrevocable gift to the next generation.

—Ernie Fletcher (Fletcher, n.d.)

The research questions and data analysis in the design of this study used generational theory to identify teachers' perceptions of the effectiveness and relevance of their ongoing professional development while working in a multigenerational learning environment. Using adult learning theory was a stepping stone for research on professional development training in a multigenerational learning environment. As described in the above section on adult learning theory, adult learners are autonomous, looking for real-life experiences, hands-on learning, and relevant skills that can contribute to their profession (King & Lawler, 2003; Blevins, 2021). However, adult learning theory does not explain or take into consideration the multiple

generations in the workforce today and the steps that are needed to reach each learner's individual needs (Lyons & Kuron, 2014; Blevins, 2021).

According to Howe and Strauss (1991, 2007), generational theory suggests that individual experiences within developmental years can shape an individual's set of beliefs and values. These experiences, both historical and social, impact the differences between each generation. At the site where I conducted my research, there were four generations of teachers, ranging in ages from 21 to 80 years. However, data obtained from the research showed that the professional development that was received did not take into consideration the way that individual experiences impact learning.

Answering research sub questions four and five provided findings where teachers addressed their perceived barriers to professional development when it came to multigenerational learning environments, and if working in a multigenerational learning environment impacts professional development training. The findings from sub questions four and five provided insight from the millennial generation on the attitudes of resistance and lack of interest from both Generation X and the baby boomer generation. There were also findings that looked at the positive aspects of working in a multigenerational environment: one millennial participant stated, "I personally like it, my teaching partner is older than me and I like benefitting from her experience. We help each other." A Generation X participant stated, "I love it, I feel that we are all able to profit from one another's experiences," and a baby boomer participant stated, "I do not feel that there is an issue working in a multigenerational environment; it is nice to be able to have a variety of teachers to learn from."

A recent study similar to this study looked at 22 teachers ranging in age from 20 to over 60 years old. Findings from the study addressed three major outcomes: learning from older

colleagues, attitudes, and dispositions, and learning from younger colleagues (Geeraerts et al., 2018). Their study findings mimic findings in this study that both older and younger teachers could learn from one another. Older teachers can learn from younger teachers promoting more innovative teaching methods and technology, and younger teachers can learn from older teachers on classroom management skills, self-regulation, and community building (Geeraerts, et al., 2018). Additionally, the finding on the importance of collaboration was addressed. All generations of participants were found to have similar learning needs, including team discussion, collaboration, sharing experiences, and observing (Geeraerts et al., 2018).

Technology was addressed as a barrier to learning among all three generations. Generational experiences differed when technology was addressed, as technology was not as relevant to the older generations as it was to the younger generations. A recent quantitative research study by Culp-Roche et al. (2020) looked at 100 faculty members and 206 students, all ranging among four generations. Findings from the study substantiate the findings in this study, where the younger generations are more comfortable with the use of technology than their older counterparts. The study also found that older generations are not comfortable and express their dislike of the use of online platforms such as discussion boards, video teaching, and simulations, whereas the younger generations prefer these methods (Culp-Roche et al., 2020).

For effective and relevant professional development to occur in a multigenerational learning environment, administration and trainers need to take into consideration generational theory and individual differences to accommodate individual goals, learning types, technology use, and communication preferences (Holyoke & Larson, 2009).

Implications

The purpose of this research was to provide insights into the current state of professional development at a Central Texas high school. It is my hope that the study provides real-life information on how teachers really feel about the professional development they receive while working in a multi-generational learning environment. The findings from this research indicate that there were few differences in how the three generations felt about relevance and effectiveness of the training they received. Additionally, there was little evidence that there were differences in learning styles among the three generations of teachers. Data from the research showed that all three generations have similar needs and requests when it comes to learning, with the exception of the use of technology. The millennial generation participants provided feedback that there was a disconnect between them and both the baby boomer and Generation X teachers on campus in relation to use of technology.

Based on the findings of this study, focusing on the adult learner and not solely on the generational component is important when designing professional development curriculums. What is important is to focus on adult learning using both transformative and experiential learning theories, as outlined in Chapter 2. Malcom Knowles, John Dewey, and David Kolb all placed a distinct focus on real-life application. In my research I came across various educational platforms that provide training to different agencies in relation to human resource management. The American Hotel and Lodging Educational Institute (2013) provides valuable insights into relevant and effective training through mentoring, collaboration, and ongoing education. The American Hotel and Lodging Educational Institute follows the teachings of Malcom Knowles, John Dewey, and David Kolb in their suggestions on adult learning principles in collaboration with training. These suggestions consist of the following: importance of discussion, experience-

based learning, encouragement of active involvement, ensuring content is relevant, and ensuring hands-on activities are incorporated in training. Professional development training needs to include content that is being sought by the learner. This includes but is not limited to ongoing professional growth, relevancy, practicality, flexibility, appreciation of individual experiences, and an all-inclusive learning environment (American Hotel & Lodging Educational Institute, 2013).

Limitations

It is important that the limitations of this study be noted. My research project was started a few months before the COVID-19 outbreak in March 2020. I facilitated my pilot research in March 2020 and received my IRB approval in November 2020. Individual interviews were conducted in January and February 2021, with the focus group in May 2021. All of these data collection methods utilized virtual Zoom meetings. The data received from the data collection methods were useful but having the ability to facilitate individual interviews and the focus group in person would have been beneficial. With the Zoom session, it was at the discretion of the participant to turn the video capability on, and all but two opted not to use video. The inability to interact and observe body language was a limitation to this study but did not hinder the overall outcome.

Second, having prior knowledge of the professional development procedures and practices posed a possibility for potential bias. To mitigate this bias, I took multiple steps, using triangulation to include focusing on researcher positionality, focusing on prior research and literature, and using a conceptual framework to guide the analysis of the data from the individual interviews and focus group.

Recommendations for Future Research

The purpose of this qualitative instrumental case study was to examine teachers' perceptions in a Central Texas high school of their professional development and sense of its effectiveness. Specifically, this study focused on teachers' perceptions of possible barriers to learning, how being part of a multi-generational learning environment impacts best practices in their professional development, and teachers' voices on how to design more effective professional development programs.

Data from this study derived from 11 Central Texas high school teachers who were a part of three specific generations: millennial, Generation X, and baby boomers. The results from the data summarized the perceptions of teachers of their professional development, but the question to be asked is: are the perceptions the same at other high schools in and out of the surrounding areas, in different counties, and even in other states? It is essential that the data derived from this study be compared in different settings.

Recommendation #1: Replicate This Study in Other High School Environments, to Include Both Smaller and Larger Populated Schools

The population at the Central Texas high school was reported to be 2,214, which places the site 218th among 2,403 high schools in the state of Texas. Given this ranking of the school, having the ability to replicate this study at both a smaller and larger school would be beneficial to determine if teachers at either of these locations would express the same findings as the teachers at the site where this study was conducted.

Recommendation #2: Replicate this Study in Other Grade School Levels, to Include Both Elementary and Middle Schools

The focus of this study was on high school teachers, teaching only Grades 9-12. Replicating this study at an elementary or middle school would be beneficial to gaining insight into how teachers at these grade levels perceive their professional development while working in a multigenerational environment.

Recommendation #3: Future Studies Could Explore Teachers' Perceptions Based on Their Level of Experience in the Field of Teaching

Findings from both the data and literature review show that teachers have many different teaching styles, levels of experience, and perceptions within their respective fields. The teaching experience of the teachers at the study site ranged from 1 to 28 years. Replicating this study with teachers with similar years of experience could have the potential to provide insight into how differently experienced teachers feel about their professional development, allowing for input on additional learning opportunities.

Recommendation #4: Utilize a Specific Theme or Subtheme Discussed in Chapter 4 for Further Study

One main finding of this research study could place a focus solely on the implementation of technology while working in a multigenerational learning environment. Placing a specific focus on technology has the potential to allow for recommendations to resolve an issue that is currently prevalent in 2022.

The use of hybrid and blended learning environments, with the increased use of learning management systems, are becoming more prominent in the field of education. To support this phenomenon, there has been an increase in studies focusing on the use of technology. According

to the National Center for Education Statistics (2019), online learning using technology increased from 20% in 2008 to 42.9% in 2016. The National Center for Education Statistics (2021) outlines findings from a survey of 1,300 public schools in all 50 states. Findings indicated that schools faced challenges for teachers in using technology for teaching purposes, showing that 26% faced large challenges for using technology, and 43% faced large challenges to find time to train teachers.

Richardson and Jelfs (2015) surveyed 7,000 university students, all over the age of 21, focusing on the digital divide. Participants in the survey ranged in age from 21 to over 70. Findings from the survey showed that only 9.5% of those in the age group of 21-29 never used social network sites, in comparison to 68.1% of the age group 70 and older. Additionally, older students shared more of a negative attitude towards technology, whereas the younger students shared a more positive outlook. The overall use of technology contributed to the digital divide.

Wolfson et al. (2014) provide recommendations on how to include and design technology-based training for older adults. These recommendations include the use of a highly structured environment, clear learning objectives, self-paced instruction, continued feedback on performance, and the use of clear fonts, background colors, and screen reading options. There is growing research on the use of technology, placing a focus specifically on the use of technology and the perceptions of teachers.

Recommendation #5: Facilitate the Same Study but Incorporate Different Learning Style Assessments

There are many learning style assessments that could lead to different findings with regard to learning styles in a multigenerational learning environment. One of the most popular learning style assessments was developed by David Kolb, known as the Learning Style

Inventory. Kolb's Learning Style Inventory has many different versions, with the newest version being recently released and renamed as the Kolb Experiential Learning Profile (KELP).

According to the Institute of Experiential Learning (2021), KELP consists of an online self-reflection tool to assist learners in understanding their ideal process of learning. Incorporating this new tool could be beneficial to additional research, provide insight to learners on their own specific learning style, and assist facilitators of professional development in gaining a better understanding of how their audience learns best.

Recommendation #6: Conduct This Study on a Large Scale

The focus of this study was qualitative in nature, utilizing a small sample at a Central Texas high school. My final recommendation would be to conduct this study on a large scale using a quantitative or mixed methods approach with a random sample of a given population to enable measurement of significant differences between groups and projection to the population.

Recommendations for Action: Central Texas High School

Recommendation #1: Explore Status of the School and ESSA Initiative

Since the late 1950s, education reform in the United States has been ongoing, with one overarching goal of providing good quality education to the nation's student population (ESSA, 2015). How can that be done? According to Carpenter and Linton (2016), the process of education has to start with the teachers. Teachers require up-to-date and ongoing professional development. However, that does not seem to be happening, per the research outlined in this study. Every Student Succeeds Act (ESSA, 2015), the most recent education reform initiative, was rolled out in the 2017/2018 school year. Texas was one of the eight states that elected not to participate. The recommendation is to discuss with the high school administration the status of the school and the ESSA initiative.

Recommendation #2: Perform a Needs Assessment With Teachers on Campus

Based on the data collected at the Central Texas high school and the review of literature, the second recommendation is to perform a needs assessment with the teachers on campus. The needs assessment would collect data from teachers to identify the areas of professional development that are most wanted and needed. Obtaining data from a needs assessment could provide the connection that teachers are currently missing from their professional development.

Conclusion

The purpose of this qualitative instrumental case study was to explore teachers' perceptions of their professional development and their sense of its effectiveness in a Central Texas High School setting, with a focus on possible barriers and how being part of a multi-generational learning environment impacts best practices in their professional development.

In connection with the literature and the findings in this study, I was able to verify that adult learning and generation theories provided insight into the perceptions of teachers and what their voices stated about effective and relevant professional development. Teachers are well aware of their needs and what they want with regard to their own professional learning. The primary research question was: What are the perceptions of teachers in a Central Texas high school of the effectiveness and relevance of their professional development in a multi-generational learning environment? This question was answered with data derived from five sub research questions.

Teachers in this study provided valuable data on their perceptions and their sense of the relevance and effectiveness of the professional development received in a multigenerational learning environment. Teachers want and expect professional development to contain the following components: usefulness, relevance, meeting their expectations, and change in the

current format of how training is developed and facilitated. With regard to learning in the generational environment, teacher participants in the Generation X and baby boomer generation want their own experiences, along with their level of experience in the field of teaching, to be considered when developing professional development. The millennials in the study would like to see more collaboration and less resistance by Generation X and baby boomers. Additionally, millennials expressed a high concern with the limited ability of older generations to utilize the technology that is required within the changing format of in-class learning to hybrid/blended learning and the learning management systems that have been established at the school.

In order to have the voices of these teachers heard, it will be important for me to ask to meet with the administration to present my findings. The focus of the presentation would both provide positive feedback and address areas that require improvement. Teachers are desperate for their professional development to provide relevant material, taught in ways that allow for collaboration and team building activities.

The conceptual framework of adult learning and generational theory was successful in directing the research and data in answering the research questions. Having the knowledge of these findings will allow for the opportunity to present the data to the school administration at the Central Texas high school where the study was executed, providing an opportunity to enhance the quality of professional development provided in the future. In addition, the findings in this study can also contribute at local, state, and national levels to make the case for needed reform of professional development curriculums.

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Appendices

Appendix A: Institutional Review Board Approval



November 4, 2020

To: Ms Gina Pagano

From: University of the Incarnate Word Institutional Review Board, FWA00009201

Gina:

Your request to conduct the study titled *An Instrumental Case Study: Understanding the Perceptions of Professional Development Among High School Teachers' in a Multi-Generational Environment* was approved by expedited review on 11/04/2020. Your IRB approval number is 20-11-002. You have approval to conduct this study through 11/4/2021.

The stamped informed consent document is uploaded to the Correspondence section in the Research Ethics Review system. Please use only the stamped version of the informed consent document.

Please keep in mind the following responsibilities of the Principal Investigator:

1. Conducting the study only according to the protocol approved by the IRB.
2. Submitting any changes to the protocol and/or consent documents to the IRB for review and approval prior to the implementation of the changes. Use the **IRB Amendment Request** form.
3. Ensuring that only persons formally approved by the IRB enroll subjects.
4. Reporting immediately to the IRB any severe adverse reaction or serious problem, whether anticipated or unanticipated.
5. Reporting immediately to the IRB the death of a subject, regardless of the cause.
6. Reporting promptly to the IRB any significant findings that become known in the course of the research that might affect the willingness of the subjects to participate in the study or, once enrolled, to continue to take part.
7. Timely submission of an annual status report (for exempt studies) or a request for continuing review (for expedited and full Board studies). Use either the **IRB Study Status Update** or **IRB Continuing Review Request** form.
8. Completion and maintenance of an active (non-expired) CITI human subjects training certificate.
9. Timely notification of a project's completion. Use the **IRB Closure** form.

Approval may be suspended or terminated if there is evidence of a) noncompliance with federal regulations or university policy or b) any aberration from the current, approved protocol.

If you need any assistance, please contact the UTW IRB representative for your college/school or the Office of Research Development.

Sincerely,

Mary Jo Bilicek
Research Compliance Coordinator
University of the Incarnate Word
(210) 805-3565
bilicek@uiwtx.edu

Appendix B:
Informed Consent Document

Informed Consent Document

Subject Consent to Take Part in a Study of:

An Instrumental Case Study: Understanding the Perceptions of Professional Development
Among High School Teachers' in a Multi-Generational Environment.

University of the Incarnate Word

Authorized Study Personnel:

Researcher: Gina Pagano, PhD Candidate
Dreeben School of Education (PhD Candidate)
Phone: 210.439.0035
Email: paganobr@student.uiwtx.edu

Faculty Advisor: Dr. Alison Buck
Phone: 210.442.4568
Email: mbuck@uiwtx.edu

Key Information: Your consent is being sought for a research study facilitated at Central Texas High School. The proposed study seeks to collect data from purposively selected key participants to identify teachers' perceptions of their received professional development and sense of effectiveness. If you agree to participate in this study, the project will involve the following:

- Procedures will include the participants and the researcher to complete both an individual interview and focus group. Each interview and focus group will have a pre-determined set of questions and will last approximately 60 minutes in length.
- The meetings will take approximately two hours, one hour for each meeting. The researcher may ask for an additional meeting to ensure sufficient data is collected.
- There are no risks associated with this study.
- You will not be compensated for your participation.
- Your participation is voluntary, and you may decide not to participate at any time.

Invitation:

You are invited to volunteer as one of the subjects in the research project named above. The information in this form is meant to help you decide whether to participate. If you have any questions, please feel free to ask.

Why are you being asked to be in this research study? You are being asked to be in this study because the researcher feels that you will be able to provide in-depth information on your personal perceptions and experiences with the professional development at Central Texas High School.

What is the reason for doing this research study? The purpose of this qualitative instrumental case study is to explore teachers' perceptions at Central Texas High School of their professional development and sense of effectiveness. The researcher wants to provide teachers with an opportunity to have a voice and share their experiences.

If you agree to participate in this study, the project will involve:

- Procedures for this study will involve participation in a minimum of two interviews and focus groups, both will be 60 minutes in length. During the interview and focus group, you will be asked questions in reference to your perception of professional development in a multi-generational learning environment. If you agree to participate in the study, you may be asked your views on best practices for professional development that benefits not only your interest, but the interest of your fellow teachers, students, and the school. The interviews and focus groups will be facilitated via Zoom conferencing on a scheduled date and time that is convenient for you.

What will be done during this research study?

- You will be asked to participate in a minimum of two individual interviews and focus groups, each lasting approximately 60 minutes. The sessions could go shorter or last longer depending on the flow of the conversation. Both the interviews and focus groups will be captured on both video and audio to ensure that all data is captured in its entirety. All video will be deleted after the researcher gathers the data. All audio files will be encrypted, labeled with an identifying number, and stored in a locked cabinet.
- There will be a possibility that contents of your feedback will be quoted in presentations and/or articles resulting from this work. An alias will always be used to protect your identity.

How will my data/samples/images be used?

- The data collected during the interviews and focus groups could potentially be used in future research studies. You will be given the option to make the choice on whether you wish to allow your confidential data to be stored indefinitely for further analysis or other potential research studies.

What are the possible risks of being in this study?

- There may be a possibility that you may feel emotional or upset when answering some of the questions asked. We will do our best to avoid any discomfort to you and that there is no risk to you of participating in the study. If any form of discomfort occurs, please ensure that you inform the researcher if you need a break or stop the interview.
- You may be uncomfortable with some of the questions being asked. If you find yourself uncomfortable, you are under no obligation to answer and can request to skip to the next question.

What are the possible benefits to you?

- Everything learned about you will be used to help create a better understanding of the perceptions of professional development at Central Texas High School. While we cannot guarantee that you will benefit from participation in this study, you may receive views and understanding that can help you and your institution.
- Depending on the outcome of the study, a potential change in the way that facilitation of professional development could change at your institution.

What are the possible benefits to other people?

- Depending on the outcome of the study, a potential change in the way that facilitation of professional development could change at other institutions.

What will being in this research study cost you?

- There is no cost associated for being a participant in this study.

Will you be compensated for being in the study?

- There is no compensation for participation in this study.

How will information about you be protected?

- Everything you have learned about yourself in the study will be confidential. The published results of the study will not identify you in any way. The only individuals who will have access to the data is the researcher, the faculty advisor, and the Institutional Review Board (IRB), or any other party required by law. If the results of the study are published, you will not be identified in anyway unless you provide explicit permissions.
- All video data will be deleted, and all audio data will be stored in a locked cabinet in the researchers home and will only be seen by the researcher and the faculty advisor during the duration of the study and for up to 10 years after.

What will happen if you decide not to be in this research study or decide to stop participating once you start?

- At any time, you can make the choice to withdrawal from participation in the study. Your decision to participate in the study is voluntary. If you choose not to participate or opt out, this will not affect your current or future status with the researcher or the University of the Incarnate Word.
- If you decide to end participation in the study, the researcher will ask if the data already collected may be used.

What should you do if you have a problem or question during the research study?

- If you experience a problem as a direct result of participating in this study, please immediately contact the researcher or the faculty advisor.

- If you have any questions now, the researcher and the faculty advisor will make themselves available to you. If you have specific questions about your rights or wish to report a problem that may be related to the study, please contact the UTW Office of Research Development, 210.805.3036.

Consent for future use of data

Initial one of the following to indicate your choice:

_____ I give my permission for my deidentified data to be used in future research and analysis. I understand that no additional informed consent for this use will be sought. I understand that my deidentified data can be stored indefinitely.

_____ I give my permission for my data to be used for the study only. I do not give permission for my data to be used in future research or analysis. I understand that my data will be destroyed within 10 years of completion of the study.

Consent for use of contact information to be contacted about participation in future studies.

Initial one of the following to indicate your choice:

_____ I agree to allow the researcher to use my contact information collected during this study to contact me about participating in future research.

_____ I do not agree to allow the researcher to use my contact information collected during this study to contact me about participating in future research.

Consent:

Your signature indicates that you (1) consent to take part in this study, (2) that you have read and understand the information given above, (3) that the information above was explained to you, and you have been given the chance to discuss and ask questions. You will be provided a copy of the consent form for your records.

Name of Participant

Signature of Participant

Date

Name of Researcher

Appendix C: List of Interview Questions

List of Interview Questions

An Instrumental Case Study: Understanding the Perceptions of Professional Development Among High School Teachers' in a Multi-Generational Environment.

Researcher: Gina Pagano
 Department: Dreeben School of Education (PhD Candidate)
 Phone: 210.439.0035
 Email: paganobr@student.uiwtx.edu

Date:
 Time:
 Location:
 Interviewer:
 Participant:

Introduction to the interview:

1. Thank you for participating in today's interview to explore your perceptions of professional development in a multi-generational learning environment. Your input is valuable to ensure effective professional development practices.
2. All responses are confidential.
3. The length of the interview will be approximately 60 minutes.
4. The purpose of this qualitative instrumental case study is to explore a teachers' perception at Central Texas High School of their professional development and sense of effectiveness. The researcher wants to provide teachers with an opportunity to have a voice and share their experiences.

Guiding Questions:

1. What are the perceptions and sense of relevance of your current professional development activities?
2. What are the overall expectations of the professional development provided to you at Central Texas High School?
3. How do you perceive the efficacy of your current professional development methods?

4. Would you identify yourself as a Baby Boomer, Generation X, or Millennial?
5. Have you encountered generational differences among the teachers at Central Texas High School? If yes, what are those differences?
6. How do you feel about working in a multigenerational learning environment?
7. What are your perceived barriers to professional development when it comes to being a part of a multigenerational learning environment?
8. How would you design your own professional development programs?
9. How do you learn best?
10. What hinders your learning?
11. What helps during your learning process?

Appendix D: List of Focus Group Questions

List of Focus Group Questions

An Instrumental Case Study: Understanding the Perceptions of Professional Development Among High School Teachers' in a Multi-Generational Environment.

Introduction to the focus group:

1. Thank you for participating in today's focus group to explore your perceptions of professional development in a multi-generational learning environment. Your input is valuable to ensure effective professional development practices.
2. All responses are confidential.
3. The length of the focus group will be approximately 60 minutes.
4. The purpose of this qualitative instrumental case study is to explore a teachers' perception at Central Texas High School of their professional development and sense of effectiveness. The researcher wants to provide teachers with an opportunity to have a voice and share their experiences.

Guided Discussion:

The Practice of Ineffective Professional Development Training

- The participants' varied perspectives on how ineffective professional development training is, including how repetitious it is year-after-year, primarily benefiting first-year hires.

Raising the Bar Elevating Professional Development for Teachers

- The many suggestions and recommendations provided by participants on how to design and develop professional development that would be more effective and beneficial.

Barriers to Effective Professional Development in a Multigenerational Teaching Environment

- The barriers and differences in the multigenerational environment concerning professional development, including differences in technology use and teaching between younger and older teachers.

The Generational Divide

- The divide that is apparent between the younger and older teachers in the school, including some stereotypes. The older teachers tend to be viewed as old-fashioned, rule-following, and not open to change. Younger teachers are viewed as technologically proficient, not social as much, and teach with bells and whistles without making sure students are actually learning.

Multigenerational Learning, Training and Differentiated Instruction

- The participants' perspective on how training should be carried out, what works, what does not, and their learning styles.

Changing, Elevating and Sustaining Teacher Professional Development Experiences

- The participants' perspectives and recommendations on how to design and develop effective professional development trainings that will be relevant to them.

The Conundrum of Irrelevant Professional Development

- The participants' perspectives on how irrelevant professional development is for them. The professional development training, although online and streamline, is repetitive (year after year), not subject focused, or not adequate in content, length, or depth.

High Expectations and Mediocre Professional Development Support

- The participants' perspectives on their professional development expectations, which are higher than what they currently receive. There are improvements that should be made to increase the effectiveness and relevance of professional development training.

Individual Interview Questions: Refresher

1. Can you please tell me about your position at Central Texas High School?
2. What are the perceptions and sense of relevance of your current professional development training?
3. What are your overall expectations of the professional development provided to you at Central Texas High School?

4. How do you perceive the effectiveness of your current professional development methods?
5. Would you identify yourself as a Baby Boomer, Generation X, or Millennial?
6. Have you encountered generational differences among the teachers at Central Texas High School? If yes, what are those differences?
7. How do you feel about working in a multigenerational learning environment?
8. What are your perceived barriers to professional development when it comes to being a part of a multigenerational learning environment?
9. Does the professional development provided at Central Texas take into consideration the multi-generational environment and differences in adult learning?
10. In a typical school year, how often is professional development facilitated at Central Texas High School?
11. What would be the top three topics that you see the most in the professional development?
12. How would you design your own professional development programs?
13. How do you learn best while participating in professional development training?
14. What hinders your learning while participating in professional development training?
15. What helps you during your learning process while participating in professional development training?
16. What would you like to see changed or improved with the current professional development you receive?

Appendix E: Email to Participants

Email to Potential Participants

An Instrumental Case Study: Understanding the Perceptions of Professional Development Among High School Teachers' in a Multi-Generational Environment.

Researcher: Gina Pagano

Department: Dreeben School of Education (PhD Candidate)

Phone: 210.439.0035

Email: paganobr@student.uiwtx.edu

Dear Sir or Ma'am,

I am a PhD candidate who is currently in dissertation on the topic of Understanding the Perceptions of Professional Development Among High School Teachers' in a Multi-Generational Environment.

I am sending this email to you as I feel your participation in the study would be extremely valuable. In your role as a teacher at Central Texas High School, you have insights and knowledge that will enhance the scope of my research and has the potential to enhance the professional development program at Central Texas High School.

For the purposes of my study, I will be facilitating a Qualitative Instrumental Case Study. The study will explore your unique perceptions at a Central Texas High School concerning the professional development you receive. This study will also focus on your perceptions on possible barriers of learning, how being part of a multi-generational learning environment impacts best practices in professional development and provide you with a platform to voice your opinions on how to design more effective professional development programs.

If you agree to be a part of this study, you will be asked to participate in two methods of data collection. These methods include individual interviews and focus groups. During these sessions, you will be asked a series of open-ended questions. All interviews and focus groups will be facilitated via the zoom platform, with a timeline of 60 minutes. Time dedicated to the interviews and focus groups could be shorter or longer depending on the individual. Once the initial set of data is collected, you may be asked to participate in a follow up interview.

I truly believe that your participation will significantly contribute to this study and I am hopeful that you will accept this invitation to participate. If you are willing to accept, please respond via email at paganobr@student.uiwtx.edu. Once I receive your confirmation of acceptance, I will provide you with the appropriate Informed Consent Letter.

Thank you for your consideration, and I look forward to working with you in the upcoming months.

Sincerely,

Gina Pagano

PhD Candidate

Concentration: Organizational Leadership

Emphasis: Adult Education

Dissertation Chair: Dr. Alison Buck

Appendix F:
Letter of Cooperation Approval



Letter of Cooperation

October 7, 2020

Dear Ms. Pagano,

Based on my review of your research proposal, I give you my permission to facilitate the study entitled "An Instrumental Case Study: Understanding the Perceptions of Professional Development Among High School Teachers' in a Multi-Generational Environment". As a part of this study, I provide my permission for you to recruit any number of teachers from [REDACTED] [REDACTED] collect data on or off campus after business hours, member check, and disseminate the results of the data with the confidentiality of the teachers who understand that their participation is voluntary and at their own discretion.

We understand that our organization responsibilities include permitting the recruitment of the teachers for participation. We reserve the right to withdraw from the study at any time if our circumstances change.

I understand that I am authorized to approve research in this setting and that your plan complies with the organizations policies.

I understand that the data collected will remain confidential and will not be provided to anyone outside of the researcher and the faculty/staff at the University of the Incarnate Word.

Focused on children,

A handwritten signature in blue ink, appearing to read "Joe Burns".

Dr. Joe Burns, Superintendent

408 S. Main Street

[REDACTED]

[REDACTED]

[REDACTED]