PERCEPTIONS OF CAREER AND TECHNICAL EDUCATION CAREER SWITCHERS IN ALTERNATIVE TEACHER EDUCATION PROGRAMS

by

QUINESHA LEWIS

(Under the Direction of John Mativo)

ABSTRACT

Each year, more individuals transition into education from other careers, bringing industry experience and advanced degrees to help students to develop job-ready skills. While these individuals often possess subject-matter expertise, they must still earn a teaching certificate, commonly through alternative certification programs. These programs, accredited by the Georgia Professional Standards Commission, were developed to address teacher shortages and provide career and technical education (CTE) teachers with an expedited pathway to licensure. Ideally, such programs equip future educators with skills in lesson planning, assessment, classroom management, and differentiated instruction, as well as prepare them to help students become workforce ready.

This study explored the perceptions of career switchers who became licensed CTE teachers through alternative certification programs. Specifically, it examined their views on preparedness in classroom management, instruction, content knowledge transfer, and overall quality of their training.

A basic qualitative research design was used, with data gathered through semi-structured interviews. Questions were developed to address participants' perceptions of their readiness to manage classrooms, deliver instructions and effectively apply their professional knowledge to teaching. Thematic analysis was employed to analyze the data, and the study was grounded in Piaget's theory of cognitive constructivism and Shulman's theory of pedagogical content knowledge.

Findings revealed that while alternative certification programs provided valuable support networks and helped participants learn to write and implement lesson plans, many were underprepared in classroom management and in translating specialized content knowledge into student-friendly instruction. These skills were often developed only through on-the-job experience prior to or during their teaching careers.

The results suggest that while alternative certification programs offer foundational training, they may not fully prepare career switchers for the realities of classroom teaching, particularly in behavior management and instructional adaptation. They study recommends that future program designs include more practical, hands-on learning experiences tailored to diverse content areas to better meet the needs of incoming CTE educators.

INDEX WORDS: Career and Technical Education, Alternative Certification Programs, Career Switchers, Cognitive Constructionism, Pedagogical Content Knowledge

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DEDICATION

This dissertation is dedicated to the memory of LaChandra “Tanny” DeCole Lewis, whose unwavering love, guidance and support continue to shape my journey. Though she is no longer with me, her strength and belief in my potential left an incredible mark on my life. Her enduring presence in my heart has been a constant motivation throughout my academic pursuits. In times when I wanted to give up, I could hear her voice pushing me to the next step. I will always carry her memory with me, and this achievement stands as a tribute to her remarkable life and the profound impact she had on mine.

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CHAPTER 1

INTRODUCTION

Teachers play a cardinal role in the quality of schooling (Zuzovsky & Donitsa-Schmidt, 2017). Their effectiveness in the field depends on several factors, but a crucial one that is repeatedly discussed is how they are educated (Scheerens & Blömeke, 2016). There are several ways of certifying teachers in the United States. Teachers can go through formal training at a university, earning a bachelor's degree and then their teaching certificate, or they can choose to take the shorter route of an alternative program. Alternative programs were born out of the need to quickly certify teachers to fill high-need areas such as math and science (Whitford et al., 2018).

Alternative programs have become increasingly popular among individuals seeking a teaching certificate, regardless of subject; career and technical education (CTE) teachers are common enrollees in such programs (Devier, 2019). These individuals may already possess a degree and/or work experience that qualifies them, under several iterations of legislative policies, to become teachers without additional formal training. Individuals are then tasked with receiving their teacher certificate in a certain number of years. In such cases, alternative programs are often used to obtain these certifications. Even though many may seek accreditation through alternative programs, the various programs do not always have the same requirements for acceptance. This variation of requirements is what makes some believe that alternative programs are not stringent enough to effectively certify teachers (Bowling & Ball, 2018). Quality and effectiveness

have been investigated in several studies in which researchers persist in measuring effectiveness based on student achievement (Stronge, et al., 2011). This approach, which usually relies solely on student test scores to measure effectiveness, may not be the best indicator of a teacher's actual effectiveness (Jang, et al., 2017). This study will focus on individuals' own sense of effectiveness and whether they were sufficiently prepared through their alternative program to handle classroom management as well as transfer of content knowledge.

Evolution of Career and Technical Education

Career and technical education (CTE) began in the United States in the early 20th century and was formerly known as vocational education (Kim et al., 2021). The concept of CTE was born out of the German educational system and was known for teaching skills that would be helpful for students in the workplace (Brewer, 2009). Federal legislation to provide funds for vocational education programs in the United States began in 1917 with the Smith-Hughes Vocational Education Act, which was replaced by the Vocational Education Act in 1963 (Kim et al., 2021). The Vocational Education Act provided a federal definition of vocational education (Kim et al., 2021) and initiated a focus on academically and economically disadvantaged students as well as students who were disabled (Malkus, 2019). The Vocational Education Act was then renamed in 1984 (Kim et al., 2021) and rebranded in 1990 to the Carl D. Perkins Vocational and Applied Technology Act (Perkins I) (Malkus, 2019). The Carl D. Perkins Act went through several iterations between 1998 and 2018 (Kim et al., 2021). The most current version of the Carl D. Perkins Career and Technical Education Act is the Strengthening Career and Technical Education for the 21st Century Act (Haviland & Robbins, 2021), or Perkins V

(Kim et al., 2021). The stated purpose of Perkins V is to make states responsible for shaping their own CTE programs and to provide requirements for oversight of the states, alignment with industry, federal funding and producing a labor force (Malkus, 2019). The goal of giving states the responsibility for their CTE programs was to provide individuals with rigorous and relevant academic content and technical knowledge and skills, provide some type of postsecondary-level credential, provide career exploration at the secondary and/or middle levels and build bridges between secondary and postsecondary levels of education (Haviland & Robbins, 2021).

Career Switchers

To help meet the ever-increasing demand for teachers and address teacher shortages, the possibility of including individuals in other professions was investigated. Policy changes such as No Child Left Behind (NCLB) and allowing "nontraditional" individuals to become teacher certified have helped alternative programs recruit individuals from other professions and prepare them to become teachers. A report for the Woodrow Wilson Fellowship Foundation on "Career Changers in the Classroom" (Hart Research Associates, 2010) reported that one-third of all teachers held a previous career before they taught. As Dieterich and Hamsher (2020) explained, career switchers can be referred to, alternatively, as career changers, midcareer changers, or second-career professionals. No matter the term, career switchers are defined in this study as individuals who enter a new occupation requiring a separate set of skills, routines, and work environments (Dieterich & Hamsher, 2020). Career and technical education teachers are career switchers who were former practitioners in various technical subjects (Omar et al., 2018b). Career switchers are recruited as CTE teachers because of their extensive

knowledge in their previous occupations (Stephens, 2015). Omar et al. (2018a) conducted a study of CTE teachers, many of whom who were also career switchers. Of the 581 CTE teachers they surveyed, 47% had switched careers to teach (Omar et al., 2018a). Even with their extensive knowledge in their field and application of skills, however, CTE teachers still needed to meet the NCLB criteria of being "highly qualified"—meaning that they need to become certified to teach. The teaching skills that individuals need to master to become certified include teaching strategies, understanding the learning process, meeting students' educational needs, effective classroom management and the ability to communicate with parents (Hart Research Associates, 2010). Individuals can learn these skills by enrolling in a traditional or alternative certification program.

Career and technical education teachers can take either the traditional route or the alternative route to become certified. Traditional certification is obtained through the completion of a "professional educational certification preparation program" (Bowling & Ball, 2018, p. 110). Traditional, for the purposes of this study, means a teaching certificate obtained through a college or university undergraduate program, although postbaccalaureate programs can also be included (Uriegas et al., 2014). Individuals who take this route typically have no prior teaching or work experience (Whitford et al., 2018). Traditional programs typically require 4 years, the standard timeline for completion of a bachelor's degree (Bowen et al., 2019). In these programs, individuals gain knowledge of the subject matter they wish to teach, pedagogy, teaching methods, lesson timing, and how to promote experiential learning (Borman et al., 2009). Requirements for entrance into an undergraduate program for teaching varies by school, but elements such as grade point average (GPA), SAT/ACT scores, high school

transcripts and application fee are standard. Requirements for admission to undergraduate CTE training programs are less clear, as there has been little research due to the decline in bachelor's degree programs for CTE teacher preparation (Martino & Lasonen, 2018). The traditional preparation route tends to be perceived as preparing teachers for the classroom instead of the "real world" (Uriegas et al., 2014).

Alternative teacher preparation programs have increased since the early 1980s (Borman et al., 2009). An alternative certificate can be awarded to any individual who does not hold an undergraduate degree from a traditional teacher preparation program (Devier, 2019). Individuals who are licensed through an alternative program typically have a bachelor's degree in their content area, undergo a screening process, have on-the-job training, and take the necessary coursework for professional education (Reese, 2010). Different states require different qualifications and skills from their CTE teachers, which can include requirements regarding type of coursework or degree, type of entrance exam (GACE, PRAXIS etc.), transcripts and/or number of years work experience (Devier, 2019). After completing an alternative preparation program, individuals should be prepared to use the knowledge from their previous careers and make it relevant to students (Bowen et al., 2019).

Different Routes and the Need for Alternative Programs

The existence of alternative routes to teacher certification was born out of a critical teacher shortage in certain subject areas (Whitford et al., 2019). The goal was to diversify the teaching force by increasing the number of individuals becoming certified through the expedited process of alternative certification (Whitford et al., 2019). According to Bowling and Ball (2018), reasons for the teacher shortage include the

growing population of students, immigration, federal and state policies, certification programs, newly certified individuals leaving the field, teacher burnout, little administrative support, and few professional development opportunities. CTE teaching positions have been hit especially hard by the teacher shortage (Devier, 2019). Just as there are numerous reasons why alternative programs are needed and varying requirements to be accepted to an alternative program, there are also a variety of personal choices behind individuals' decisions to choose alternative programs over traditional programs. According to Devier (2019), individuals choosing alternative programs are usually older, hold academic degrees in fields other than education, and have the necessary work experience to teach CTE. Their reasons for choosing alternative programs include being able to enter their chosen field with less college experience, potentially not needing to pass a competency exam, and requiring less pedagogical preparation (Bowling & Ball, 2018). For others, the reasons may be because they can enter the classroom faster and take classes in person or online (Dietrich & Hamsher, 2020). Individuals may also choose an alternative program because of the instructional timing, context, and ability to use their professional knowledge and skill (Devier, 2019) as well as cost of the program, geographical location, and personal factors such as family.

Statement of the Problem

Adapting to a career in teaching may be challenging for some. According to Haim and Ambur (2016), individuals may have lofty expectations based on success in their previous career and could find it difficult to adapt and develop the necessary skills for teaching. Bowen and colleagues (2019) also stated that regardless of how individuals are certified, they may not realize all that they need to know and learn to become an effective

teacher. What is missing from current research is information on how career switchers feel they are being prepared in alternative programs. Understanding these perspectives is imperative because (a) understanding what training in an alternative program individuals believe helped them the most as they began teaching and (b) obtaining their feedback on strategies and resources they feel would be of benefit for future participants in alternative programs will enhance the training these programs can provide and, ultimately, result in better-prepared CTE teachers. There is currently no definitive measurement for CTE teachers' preparedness or effectiveness, but future research could be developed that, for example, asks alternatively certified teachers to rate their self-preparedness following their training.

Purpose of the Study

The purpose of this study is to explore the perceptions of career switchers who pursue certification through an alternative program to become CTE teachers. In this study, career switchers are defined as individuals who have held a position in a different discipline before deciding to become a teacher. These individuals are industry professionals with current licensure and degrees in their chosen field (Bartholomew et al., 2018). The study focuses on participants' perceptions of preparedness in classroom management, instruction, and transfer of knowledge as well as their program's quality.

Theoretical Framework

The frameworks that guided this research are Piaget's theory and interpretation of cognitive constructivism (Powell & Kalina, 2009) and Shulman's interpretation of pedagogical content knowledge (Tuithof et al., 2021). Cognitive constructivism is used to explain how an individual's personal experiences influence their ideas and shape how

they learn (Powell & Kalina, 2009). The concept of pedagogical content knowledge helps explain how the individual's learning shapes how they transfer their technical knowledge into teachable content (Özden, 2008).

Being familiar with the content is not enough for teachers to effectively engage in meaningful pedagogical instructional practices (Yilmaz, 2011). Alternative certification programs are preparing prospective teachers to develop several skills, including understanding the learning process, assessing students and using the data from assessments to modify instruction, identifying students' differences and abilities, assisting those with limited proficiency in the English language, and effectively managing the classroom (Hart Research Associates, 2010) and are providing prospective teachers with pedagogy skills to transfer their knowledge to their students (Boyd et al., 2007). Yilmaz (2011) suggests that teachers need not only a strong base of knowledge in their content area but also a strong grounding in learning theories and how to apply them in instructional practices. Cognitive constructivism holds that individual thought is required for students to understand material and not memorize material (Powell & Kalina, 2009). CTE teachers have participated in knowledge acquisition from their previous work experiences (Bowen et al., 2019) and switch careers to become teachers for various reasons. Once they become teachers, they need to form knowledge around the teaching profession. Teachers consider their previous understanding of the field and how the classroom works as they begin constructing effective teaching styles (Glasson & Lalik, 1993). This type of constructive consciousness could be used to help explain the study participants' thoughts on how prepared they were by their alternative programs.

Research Questions

This study aimed to answer the following questions:

1. How prepared do individuals feel overall after completing an alternative preparation program?
2. How prepared do individuals feel to manage the classroom after completing an alternative preparation program?
3. How prepared do individuals feel to transfer professional knowledge to content instruction after completing their alternative preparation program?

Significance of the Study

Alternatively certified teachers make up more than one-third of all new teachers hired in the United States (Hart Research Associates, 2010). These alternative programs are also used by the one-third of teachers who enter the classroom but had previous careers (Hart Research Associates, 2010). These teachers fill some of the teacher shortages that are prevalent across the field of teaching. One critical issue associated with career switchers certified through alternative programs is their retention in the field; alternatively certified career switchers often struggle to adapt their previous work experience to teaching and require ongoing support from school officials (Anderson et al., 2014). Due to this issue, Bowling & Ball (2018) have questioned alternative programs and their ability to properly instruct individuals, especially with the inconsistencies in the coursework required as well as the duration of the various programs offered. Even with the inconsistencies in the many alternative programs, assessments indicate no significant difference in student outcomes or student performance regardless of teacher certification type (Bowling & Ball, 2018). However, teachers' level of preparedness upon completion

of their training programs has been identified as a major factor in teacher effectiveness (Bowen et al., 2019). This study aims to gather information on how teachers who are career switchers trained through alternative programs and who now teach in CTE disciplines feel they were prepared by their alternative program. Research has been conducted on student achievement based on teacher effectiveness, teacher job satisfaction, teacher shortages and teacher retention, but there is very little research regarding teachers' perceptions of their preparedness after completing alternative programs. Studying teachers' perceptions of preparedness can provide information regarding the teachers' own assessments of their ability in areas such as content and curriculum, knowledge of students and their learning, managing their learning environment and making effective assessments (Adams, 2010). The data gained from interviewing these individuals can help the leaders of alternative programs as well as school administration provide more support to help newly certified career switchers.

CHAPTER 2

REVIEW OF LITERATURE

Overview of Career and Technical Education (CTE)

Beginning in the 1980s, the need emerged for more qualified CTE teachers (Devier, 2019). As defined by Anderson and Anderson (2018), CTE is instruction that offers hands-on learning opportunities that allow for new ways of student engagement. Initially, CTE programs targeted students who were educationally and economically disadvantaged (Malkus, 2019). This mentality soon moved to every child being afforded the same opportunity to quality education (Bowen et al., 2019). Fletcher and Gordon (2017) discussed how high school graduates lack the skills to participate in both college and the career world, where technology and knowledge are in high demand, and viewed CTE as a way to address this skills gap.

Benefits of CTE

The rich history of CTE cannot be ignored, but it is equally important to clarify its purpose in the United States. The main purpose of CTE is to provide a force of semiskilled workers for the workforce (Malkus, 2019). The Perkins V legislation stated that students participating in CTE should be receiving "a skill, an industry recognized credential, a certificate, or an associate degree" (Haviland & Robbins, 2021). To achieve these goals, the CTE programs provided to students need to be academically rigorous and prepare students with the training to occupy high-skill and high-demand careers (Xing et al., 2017). Per the Career and Technical Education Act of 2006, CTE programs receiving

funds need to offer students one of the following: elements of either secondary and/or collegiate education, course content that is not duplicated, the opportunity to receive college credit or a pathway to an industry certification or college certificate or degree (Xing et al., 2017). CTE programs are either embedded in traditional institutions (high schools) or offer coursework through vocational methods. These programs also try to offer internships, apprenticeships, or skill training to students (Haviland & Robbins, 2021).

The students of CTE programs enjoy many benefits. Kim et al. (2021) listed the benefits of CTE as offering educational experiences to students that include academic content, technical skills in workforces that are current or upcoming, and attempting to build connections between the workforce and education. Participation in CTE programs "reduces high school dropout rates and provides students with extended learning experiences that connect what they learn to real-life scenarios" (Xing et al., 2017, p. 47). Students often receive training in both college and career areas (Haviland & Robbins, 2021). Students in CTE receive curriculum based on industry standards and work-based learning opportunities in the hopes of receiving jobs with good pay and opportunities for promotion (Harnish & Lynch, 2005; Xing et al., 2017).

CTE Educators

Unlike traditional teachers, CTE teachers are qualified based on their industry experience (Zirkle et al., 2019). Industry careers that fall under the CTE umbrella include trade and industry, healthcare, agriculture, business, marketing, and family and consumer science. CTE teachers in these industries rely heavily on alternative programs for their teacher certification. Fletcher et al. (2015) cited the U.S. Department of Labor's

Occupational Outlook Handbook as stating that the growth of CTE teachers between 2012–2022 was expected to grow by 9%. Zirkle et al. (2019) expected more than 7,000 jobs in CTE needing to be filled by 2026. In 2005, over 59,000 teachers received a certification through an alternate certification program. Even with the increase in need for CTE teachers, there has been a steady decline in preparation programs, whether undergraduate or alternative (Fletcher et al., 2015).

Teacher Certification: Processes and Problems

Also, around the 1980s, substantial critiques emerged concerning how the United States prepared and educated their teachers. Most criticisms focused on K–12 education, but secondary education also received backlash. The education of teachers has been a topic of conversation since then and, coupled with teacher shortages, prompted the emergence of alternative teacher certification programs as the perceived solution (Borman et al., 2009). There are currently two ways to certify teachers in the United States: traditionally and alternatively.

Traditional Teacher Certification

Traditional teacher certification prepares and certifies teachers through a professional, educationally grounded teacher certification program (Bowling & Ball, 2018). Traditional programs focus on students receiving their bachelor's degree and teacher certification, usually from a college or university, before they start teaching (Linek et al., 2012). The requirements for admission to traditional programs or an undergraduate program vary but usually include aspects such as GPA, SAT/ACT score, high school transcript and application fee. Traditional preparation tends to be perceived as preparing teachers for the classroom instead of the "real world" (Uriegas et al., 2014).

It is also more costly to pursue, and the cost and length of time of a traditional program mean that many are unable to stay in traditional programs. Key aspects of traditional education are the development of subject matter knowledge in the field one aspires to teach in, pedagogy and teaching methods, timing, and experiential learning (Borman et al., 2009).

Alternative Teacher Certification

In contrast, alternative teacher certification programs are defined as any means other than a professional, educationally based teacher preparation program (Bowling & Ball, 2018). In other words, alternative certification programs are intended for individuals who do not hold an undergraduate degree in teacher education from a teacher preparation program (Devier, 2019; Linek et al., 2012). Alternative certification programs also emerged in the 1980s, initially, to recruit math and science teachers as these were considered high needs areas yet were difficult to recruit in (Borman et al., 2009).

Alternative programs are often considered a “fast-track” to certification and can range from as little as 2 weeks of intensive study to 2 years of study, usually part-time (Haim & Amdur, 2016). These alternative programs usually include the individual working as a teacher while completing the coursework to fulfill the student-teacher aspect of their training (Bowling & Ball, 2018). Characteristics of alternative programs such as the level and type of education, work experience, structure, and duration do vary depending on the program (Borman et al., 2019).

Individuals who are licensed through an alternative program typically have at least a bachelor’s degree in their specific content area, undergo a screening process, receive on-the-job training, and take the necessary coursework for professional education

(Lucksnat et al., 2022; Reese, 2010). Individuals who choose alternative programs are usually interested in their laxer admission and completion requirements, lower cost, and shorter duration. Because many already possess degrees and high levels of training, alternative programs focus on content mastery and on-the-job teacher training (Devier, 2019). Unfortunately, due to the decline in CTE undergraduate teacher training programs, there is a lack of information about admission requirements or numbers for these programs (Martino & Lasonen, 2018).

The main reason for teachers to seek the alternative certification route is affordability (Newton, et al., 2020). Going through a traditional program can be costly, especially since most individuals seeking certification to teach CTE already hold at least a bachelor's degree (Dieterich & Hamsher, 2020). Unlike traditional programs in which the individual is uncompensated, even during student-teaching (Redding, 2021), alternative programs typically offer individuals a salary through a probationary period while they work on their coursework and student-teach— essentially, a paid internship where teachers are learning on the job (Hart Research Associates, 2010). Participants in these programs also complete less coursework, which shortens the duration of the training and thus the cost (Redding, 2021). Thus, alternative programs can help support groups such as minorities, who might find longer and more costly traditional training programs unfeasible.

The State of Alternative Programs Across Georgia

In Georgia, CTE "career clusters" comprise 130 pathways across the state, with a total enrollment of almost 600,000 middle- and high-school students (Georgia

Department of Education, 2021). Teachers of these CTE courses can be certified through an approved program or through a permit.

Approved Programs Route. The Georgia Teacher Academy for Preparation and Pedagogy (GaTAPP) is the alternative route for teachers who want to enter an approved program (Georgia Professional Standards Commission, 2021). Its main purpose is to provide those who have a bachelor's degree or higher with the means to gain a teacher certificate (Georgia Professional Standards Commission, 2022). The Georgia Professional Standards Commission (2021) has agreed that "these programs can be a good fit for career-changers" (para. 1). Candidates for the GaTAPP meet requirements to include a major or equivalent in the subject that they want to teach or passing a Georgia Assessments for the Certification of Educators (GACE) examination. Additionally, these individuals are to be employed by an accredited school district or private school, hold a Georgia provisional certificate or permit, and must receive support throughout the program. GaTAPP programs usually take individuals at least 1 and no more than 3 academic years to complete from the date of entry.

These programs provide clinical practice through the individual's place of employment, as well as a support team that consists of an administrator, mentor, supervisor, and content specialist. There are 22 GaTAPP providers across the state of Georgia, with 14 regional education service agencies that provide teacher certification covering all but two of the 16 regions in Georgia (Georgia Department of Education, 2021). Six local school systems are found on the approved list, as well as one technical college, and there is an approved system at the Georgia Charter Schools Association.

CTE teachers can participate in the GaTAPP program that best suits them based on requirements, convenience, and geographic location. CTE teachers in over 20 specializations take advantage of GaTAPP programs (Georgia Professional Standards Commission, 2021). The specializations include audio/video technology and film, automotive service technology, barbering, cosmetology, culinary arts, health information technology, and law, public, safety, corrections, and security.

Permit Route. In addition to GaTAPP programs, individuals can be certified using a permit. This alternative route is most suitable for the Career and Technical Specialization. Individuals who receive a permit qualify to teach in certain fields based on their work experience, educational requirements, and assessments. Individuals who can be granted a permit include those in career and technical specializations, engineering and technology, healthcare science, and Junior Reserve Officers' Training Corps (JROTC). Requirements for a permit include passing the GACE Educator Ethics Assessment, having 2 years of work experience in one's topic area, and minimum degree requirements and/or licensure, depending on the specialization. The permit is valid for 3 years, and individuals can complete varying requirements to have their permit extended every 5 years (Georgia Professional Standards Commission, 2022).

The State of Alternative Programs Across Different Countries

The United States is not the only country with the need for alternative certification programs. Australia and Europe also struggle with teacher retention and filling in-demand positions. In Australia 40% of teachers leave the profession within the first 5 years, often due to poor work environment or job dissatisfaction (George et al., 2018). The concerns reported in Australia are similar to those in the U.S.: new teachers

dealing with classroom management, student motivation, lack of resources, changing curriculum and high work demands (George et al., 2018). Like the U.S., Australia has adopted alternative programs to fill in-demand positions. The Australian Government Department of Education (2022) lists two ways to become alternatively certified: (a) Teach For Australia, which is an alternative program that primarily recruits individuals with backgrounds in science, technology, engineering, and mathematics (STEM) who receive training for 2 years and earn a Master of Teaching at the end of the program; and (b) La Trobe University, whose program targets individuals who commit to the community for which they will teach and also awards a Master of Teaching degree following a 2-year training period (Australian Government Department of Education, 2022).

Similar to the variation among programs across U.S. states, other countries have alternative programs, although the routes vary. For instance, Germany has reported teacher shortages due to 42% of the teaching population aging and being close to retirement age (Lucksnat et al., 2022). German alternative programs are based on an individual's specific circumstances: for example, in the *Quereinstieg* program, an individual can enter if they already have a master's degree in a field other than teaching but that relates to two school subjects, while in the *Seiteneinstieg*, a master's degree is still required but its relationship to two subject fields is not (Lucksnat et al., 2022). No matter the route, it is important that highly qualified individuals are certified quickly to fill the in-demand teaching positions.

Required Teaching Skills

Regardless of whether the teacher is traditionally or alternatively prepared and teaching traditional subjects or CTE, research has identified certain teaching skills that teachers of all grades need to provide effective instruction. The skills cited in "Career Changers in the Classroom: A National Portrait" (Hart Research Associates, 2010) include the following: An understanding of the learning process, which includes teaching strategies that are content specific; regular assessment of student learning by teachers in their own classrooms; use of frequent formative assessment findings to modify their instruction; the ability to identify and respond to individual student differences in ability and in instructional needs; classroom teaching strategies that are responsive to students with disabilities and those with limited proficiency in the English language; effective classroom management; and knowing how to communicate and work with parents (p. 6).

Teacher Shortages and Alternative Certification

Alternative certification programs began in the 1980s, in the hopes of combatting the rising teacher shortages due to increasing student enrollment and an aging teacher workforce (Devier, 2019). The reduced time it takes alternatively certified teachers to enter the classroom makes alternative programs attractive and has led to their proliferation (Dieterich & Hamsher, 2020). The main factors influencing the demand for teachers are teachers leaving the field permanently or temporarily for various reasons and student enrollment (Van Overschelde & Wiggins, 2019). Bowling and Ball (2018) reported many other reasons for teacher shortages, even breaking them down at the micro and macro levels. On the micro level, shortages could be due to aging, teacher burnout, lack of administrative support and lack of opportunities for professional development. On

the macro level, factors included growing populations in schools, policy, prestige, and the individual's level of education. Another macro factor mentioned by Bowling & Ball was the certification programs offered. Devier (2019) suggested that other routes to certification are needed to fill in-demand teaching positions affected by the shortage, stating that in the United States there were 105 alternative pathways to teacher licensure as of 2019.

Concerns About Teacher Preparation via Alternative Certification

Even with the creation of this substantial number of alternative programs, Borman et al. (2009) highlighted that these programs are commonly perceived as inadequate to prepare teachers. According to Bowen et al., (2019) some alternatively certified teachers lack understanding of pedagogical theories and practices, such as those described above, compared to those who completed traditional programs. Due to this lack of pedagogical knowledge, these alternatively certified teachers cannot effectively develop and deliver lesson plans to accommodate students (Bowen et al, 2019). As a result, student achievement is affected, and student achievement has been tied to teacher effectiveness. For example, Duncan et al. (2013) found that achievement was higher for students whose teachers have confidence in their educational effectiveness.

Teachers' greater content knowledge has also been shown to impact students' academic performance, but this alone is not enough to support student learning (Park et al., 2020). Additionally, concerns about recruitment and retention remain. Although Van Overschelde and Wiggins (2019) sought to demonstrate that alternative programs could assist in recruitment and attrition of teachers, they acknowledged that alternatively prepared teachers leave at higher rates than traditional ones. This trend may be due to

alternatively certified teachers' struggle to perform in environments that differ from how they were educated and the lack of ongoing support from their preparation program or school administration (Anderson et al., 2014). Additionally, Van Overschelde and Wiggins (2019) found that some alternatively certified teachers leave teaching due to the stress of having to teach content that is outside their field.

Such perceptions have led to the implementation of state and federal regulations strengthening the requirements, such as GPA, for alternative certification programs. Other laws, such as the No Child Left Behind Act of 2001, intended to make leaders more accountable in improving student performance by requiring states to hire "qualified teachers"—typically, teachers who hold at least a bachelor's degree and have passed state academic tests (Borman et al., 2009). However, such actions had negative outcomes as the increased requirements discouraged individuals from embarking on the journey to becoming a teacher, regardless of whether they planned to enter an undergraduate program or alternative program (Kim et al., 2021; Van Overschelde & Wiggins, 2019). Such challenges have led to a continuing lack of qualified teachers (Whitford et al., 2018). Different states require different qualifications and skills from their teachers. These requirements can range from type of coursework or degree, type of entrance exam (GACE, PRAXIS, etc.), transcripts and amount of work experience; nevertheless, these policies still allow graduates with lower academic performance to enter the world of teaching.

Positive Perceptions of Alternative Certification Programs

Although many researchers have asserted that alternative programs are ineffective in training high-quality teachers, this notion remains contentious, and there are numerous

positive perspectives on alternative programs in the literature as well (Bartholomew et al., 2018; Bowen et al., 2019; Sass, 2015). For example, alternatively certified teachers may have more in-depth content knowledge—gained through their previous work experience—which allows them to provide students with more authentic real-world experiences than traditional teachers can (Bowen et al., 2019).

School systems are interested in CTE teachers because they bring to the classroom real-life experiences and the ability to help prepare students for the world of employment (Stephens, 2015). According to Devier (2019), teachers certified through alternative programs have skills that are often valuable in teaching minorities and are generally more mature. Moreover, concerns about the link between student achievement and teacher preparation/effectiveness are complex; for example, Schmidtke argued that student achievement is an outcome of expectation rather than directly correlated with teacher effectiveness. According to Schmidtke (2017), teacher effectiveness can influence a student's beliefs in what they themselves can achieve but cannot directly influence their behaviors and actions.

In the end, alternative programs help boost the number of teachers being certified and the recruitment of more diverse teachers, but only in the short-term. Practices need to be put into place to support the teachers recruited through alternative programs remaining in the teaching field (Van Overschelde & Wiggins, 2019).

Career Switchers

The terms career changers, career switchers and second-career teachers are synonymous in the literature (Haim & Amdur, 2016). Career switchers can be defined in several different ways. Career changers were defined by Anderson et al. (2014) as

individuals who are typically older and had previous careers that were not at a school. Teachers who switch careers are defined as individuals over 25 years of age who used their previous jobs as life experience. These individuals are said to be more mature, and their experiences can be integrated into their teaching career (Bar-Tal et al., 2020).

Haim and Amdur (2016) define second career as individuals at least 25 years old who worked full-time in a previous career that was not teaching. Alharbi (2020) defined second-career teachers as those who are older and have specific job skills and experiences from another job. The amount of time that individuals worked at their previous jobs is up for debate, ranging from 6 months to at least 3 years (Haim & Amdur, 2016). No matter the name or the definition, career switchers are said to have positive influences on students and the school as whole by being flexible, adapting to students needs and by problem-solving (Bar-Tal & Gilat, 2019). They also have various levels of employment skills, such as communicating effectively, multitasking, and thinking analytically (Omar et al., 2018).

Career switchers make up 35% of all teachers, and one-third of newly hired teachers come from an alternative certificate program (Hart Research Associates, 2010). Bottoms and McNally (2005) stated that CTE teachers make up about 28% of all teachers; in a study that encompassed 30 states and 12,000 teachers, 75% of them reported being participants of an alternative preparation program. CTE teachers as career switchers are important in the field of education for several reasons. According to Kim et al. (2021), the benefits of CTE include bringing activities and industry-related content to education and providing technical skills to match ongoing professional needs. CTE teachers provide real-world experiences (Zirkle & Jeffery, 2017), exposure to varying

careers (Luaces et al., 2018) and prepare students with skills for varying technical fields (Bartholomew et al., 2018).

Many career and technical education teachers are career switchers. Career switchers are frequent users of alternative teacher preparation programs for certification. According to Anderson et al. (2014), career switchers are individuals with dense and varied life experiences. In a report conducted by the National Center for Education Statistics (2022), alternative route teachers reported the following areas as being their main activity the year before they began teaching: working in a field outside of education (30%), working in education but not as a teacher (23%), teaching at a college/university (3%), caring for a family member, serving in the military, unemployed but seeking employment, and previously retired (5%). These percentages were reported in higher rates than those teachers who entered teaching through a traditional route. The desire to make their content area relevant to students and their passion in their fields are some of the reasons individuals switch from industry jobs to teaching (Newton et al., 2020).

However, there are many other reasons, both social and personal, why people switch to teaching. Social factors include unplanned life changes, lack of employment in their chosen field or being displaced from their current job. Bauer et al. (2017) described personal factors influencing a career switch as perceived teaching ability, desire to influence children or having a positive education experience that prompted the career switcher to want to become a teacher. These choices can affect how CTE teachers interact with students and transfer their content knowledge.

Career Switchers' Effectiveness

Career switchers have acquired skills in technology, reflective thinking and understanding learning processes (Bar-Tal & Gilat, 2020). They also bring in extensive content knowledge detailed in facts, concepts and theories related to their subject area (Bostock, 2019) and real-world experiences and expectations to prepare students for entry-level jobs (Stephens, 2015). Although their skills are unique and valuable, career switchers are nonetheless faced with changes in their normal duties and job tasks as well as their preconceived notions of teaching and the need to develop pedagogical skills when they become teachers. Career switchers may have issues transferring their competencies into lessons that students can understand (Haim & Amdur, 2016). Career switchers have a greater ability to react to different situations and positively influence students, partly due to their success and multitasking ability developed during their previous job. Having worked in different careers may also be directly correlated to their motivation in becoming a teacher and their desire to help others and society (Bar-Tal & Gilat, 2020).

Despite their skills and wealth of knowledge in their content area, career switchers may fall short on a few key components that would make them effective educators. These components are learned and practiced in the individual's teacher preparation program and include planning and teaching effective lessons (Haim & Amdur, 2016), classroom management (Flower et al., 2017), managing diverse learners, improving learner motivation, and pedagogic and teaching content issues (Bar-Tal & Gilat, 2020).

However, these challenges do not necessarily mean that alternatively certified teachers are less effective. In fact, according to Bowen et al. (2019), teachers who went

through an alternative certification program had students with similar achievement rates to those of traditionally certified teachers. For teachers that do struggle, Bar-Tal et al. (2020) suggested that they should receive additional support from mentors and leaders at the school, which could take the form of teacher workshops, professional development, observation, and feedback and encouragement.

Theoretical Framework

The frameworks that guided this research are Piaget's theory and interpretation of cognitive constructivism (Powell & Kalina, 2009) and Shulman's interpretation of pedagogical content knowledge (Tuithof et al., 2021). Cognitive constructivism will be used to explain how an individual's personal experiences help to construct their ideas and shape how they learn (Powell & Kalina, 2009). Pedagogical content knowledge will be used to help explain how the individual's learning shapes how they transfer their technical knowledge into teachable content (Ozden, 2008).

Being familiar with the content is not enough for teachers to effectively engage in meaningful pedagogical instructional practices (Yilmaz, 2011). Alternative certification programs prepare prospective teachers to develop several skills: understanding the learning process, assessing students and using the data from assessments to modify instruction, identifying differences and abilities of students, assisting those with limited proficiency in the English language, and effective classroom management (Hart Research Associates, 2010) and provide prospective teachers with pedagogy skills to transfer their knowledge to their students (Boyd et al., 2007).Yilmaz (2001) suggested that teachers need a strong base of knowledge in their content but also a strong foundation in learning theories and how to apply them in instructional practices.

Cognitive Constructivism

Cognitive constructivism asserts that individual thought is required for students to understand material and not merely memorize it (Powell & Kalina, 2009). Once career switchers become CTE teachers, they need to form knowledge around the teaching profession. These teachers consider their previous understanding of the field and how the classroom works to begin to construct effective teaching styles (Glasson & Lalik, 1993). This level of consciousness could be used to help explain teachers' thoughts on how they were (or were not) prepared by their alternative programs.

Constructivism is a theory that maintains that people learn through experiences and reflection. This theory was proposed by Jerome Bruner in 1966 and focused on students learning by applying what they know, reflecting, and discussing among their peers (Saleem et al., 2021). Glasson and Lalik agreed that students and teachers must actively engage in the construction of knowledge. This active engagement helps students continue to challenge their existing understandings based on their experiences and allows teachers to understand the student's viewpoints and tailor classroom activities to assist in knowledge construction (Glasson & Lalik, 1993).

Cognitive constructivism is a learning theory, building on the principles of constructivism, which emphasizes the active role of learners in constructing their own understanding and knowledge. It suggests that individuals actively organize and interpret information from their experiences, and this process is influenced by their existing knowledge and mental frameworks. Cognitive constructivism asserts that knowledge is constructed in the mind and not by using any one specific source (Hruby & Roegiers, 2012).

Using pre-existing knowledge, career switchers that are alternatively certified as career and technical education teachers bring real-world problems to classroom that help students actively engage in what they are learning (Saleem et al., 2021), provide relevant context (Yilmaz, 2011), and involve students in activities that help them internalize and not merely memorize the material (Amineh & Asl, 2015). To carry out these tasks, the alternative program's curriculum should be designed in a way to promote in-depth and personal understanding from its participants (Glasson & Lalik, 1993). These programs should also equip teachers with certain skills before they enter the classroom, such as the development and use of a rubric, formative and summative assessment of students, aligning instruction with the standards as well as current skills students may need to know, building rapport with students, and classroom management (Bowling & Ball, 2018). This training helps prepare teachers and has been argued to be a critical component to teacher effectiveness (Bowen et al., 2019).

Effectiveness of Career Switchers and Teacher Success

While not this paper's focus, it would be remiss if effectiveness and teacher success were not touched on as they are common themes throughout the literature. Teacher effectiveness is subjective; however, previous research has studied the effectiveness of alternative teacher preparation programs compared to traditional ones to ascertain which type of program is "better" in preparing individuals to teach (Stronge et al., 2011; Scheerens & Blömeke, 2016). The effectiveness of career-switchers as teachers, student achievement based on the teacher's training, classroom management based on the teacher's training, and alternative programs' role in the recruitment and attrition of highly qualified teachers have all been topics in the effectiveness studies

(Bowen et al., 2019) Self-efficacy has been a huge topic in justifying alternative programs.

An effective teacher is said to be one who is meeting the needs of their students both academically and personally through continued reflection on their practices (Duncan et al., 2013). Self-efficacy, or an individual's perceptions of their own effectiveness, was first discussed by Albert Bandura in 1977 (Parikh et al., 2020). Several aspects of self-efficacy were described, including proficiency, experiences, verbal coaxing, and physiological state (Parikh et al., 2020). Self-efficacy is a tenet of the social cognitive theory stating that individuals attempt to control things happening in their lives, how they perceive these events, and how they respond to these events. One's self-efficacy can help determine whether one takes chances when new opportunities arise (Schmidtke, 2017). Without self-efficacy, individuals may not be able to face and persevere when situations become difficult (Parikh et al., 2020).

Even though self-efficacy can be a subjective concept, it may be an important theory for investigating the perceptions of individuals who have completed alternative programs. A teacher's self-efficacy is one's belief in their capability to efficiently teach (Duncan et al., 2013). If an individual does not believe in themselves or their capabilities, or if they are unwilling to take some risks, then they may not be successful as teachers. This is especially true when an alternatively certified teacher is teaching even as they are learning the basics of pedagogy and transferring knowledge and skills. By using the concept of self-efficacy, individuals may be able to express how prepared they were to handle a classroom after their completion of an alternative program.

In an investigation of teachers' self-efficacy, or their own personal belief that they are engaging competently as teachers Duncan et al. (2013) surveyed teachers from alternative and traditional programs with less than 10 years of experience. Teachers from traditional programs reported higher levels of self-efficacy in most items surveyed, except for using noncomputer technology. One issue with this study, however, is its focus on self-efficacy and use of individuals' self-rankings of their own effectiveness, which could leave many areas up for interpretation. Such subjective rankings cannot definitively answer the question of whether an alternatively prepared individual is more or less effective than a traditionally prepared teacher. The survey tool used for the study should be tested further to determine its validity, and students need to be informed of the importance of ascertaining whether they have been taught effectively (Duncan et al., 2013).

In addition to self-efficacy, it is imperative to learn whether someone is an effective teacher according to others' perceptions. Teachers believing that they are effective, while important, pales in comparison to *students* believing that their teacher is effective, as reflected through students' understanding of the material and achievement. According to a study by Boyd et al. of test scores of students whose teachers switched careers, career switchers were not more effective than teachers who had no prior experiences with other places of employment. However, this finding was based on surveys, which may not be as accurate due to self-reporting. Future research needs to be done over time and focus on whether career-switchers become more effective as they gain more teaching experience (Boyd et al., 2011).

Student achievement has been also evaluated to determine whether a teacher is effective. Sass evaluated teacher preparation programs based on their requirements and teacher performance and found that programs with less stringent requirements seemed to attract individuals with more "intellectual ability" (p. 32). Ultimately, Sass concluded that teachers from alternative programs may be more productive than those completing traditional programs, and that teacher performance is, overall, similar between those completing an alternative or traditional program. Although this study indicated that individuals completing alternative programs with less restrictive requirements have a greater impact on student achievement, it is difficult to predict which program will produce better teachers. One reason for this limitation is that this study was conducted in a single state, and requirements vary so much among states that it is difficult to say whether these results would be the same in different states (Sass, 2015).

Teacher success can also be understood through student achievement. For example, CTE has been proven to boost graduation rates and to expose students to different careers (Luaces et al., 2018); indirectly, this success is due to the highly qualified teachers being certified through alternative certification programs (Whitford et al, 2018). Stephens (2015) asserted that "teachers with industry expertise are valuable in CTE classrooms." "Success" as a teacher can be measured in several ways. Azer (2005) and Adams (2010) described frameworks that outline a successful teacher's characteristics.

Azer listed twelve qualities of a good teacher, although surprisingly, the list did not mention the creation of lesson plans. The qualities included encouraging diversity, respect, motivating students, trust and fostering critical thinking, creativity, and

teamwork. Teachers bring skills and talents to their teaching career and constantly seek to learn and use new skills in the classroom. The thinking is that CTE teachers embody these two qualities the most. Bringing in skills and talents can help with developing critical thinking skills, help students comprehend different topics and foster memorable impacts on students (Azer, 2005). In addition to bringing in real-world experiences to students, CTE teachers are also tasked with updating curriculum to be representative of the changing workforce (Fletcher & Gordon, 2017). This responsibility shows the teacher's willingness to learn new skills, use them in the classroom, and keep up to date in whichever discipline they previously worked (Azer, 2005). This level of practice can result in increased academic achievement for students (Devier, 2019) and helps to add to the definition of what "success" as a teacher can embody.

Another framework for success was described by Adams (2010) in the Georgia Framework of Accomplished Teaching, published by the Georgia Department of Education. The Framework describes teaching standards, some of which resemble Azer's (2005) 12 qualities. The differences between the two frameworks include content and curriculum, knowledge of student learning, and planning and instruction, which were areas in which CTE teachers were confident after being given the Framework and told to examine their strengths and weaknesses. For the content and curriculum standard, the teacher should be able to demonstrate their knowledge in their subject, keep current in their content area and use a variety of resources when teaching (Adams, 2010).

A "successful" teacher will have these qualities, but this is not the sole factor contributing to their success. Another capability that a "successful" teacher should be able to exhibit is knowledge of student's learning. This encompasses being able to have

high expectations and believing in all their students, understanding diverse learners, being flexible based on students' needs and creating relationships with students and families to support learning. Lastly, using the Framework, a “successful” teacher should be able to create and plan instructional experiences that are clear using various instructional strategies, adapting by using feedback from students, and using their knowledge of content material to plan and instruct (Georgia Professional Standards Commission, 2021).

Pedagogical Content Knowledge

Understanding teacher effectiveness and successful teaching is a broad, personal and sometimes biased topic. However, many attributes of a “successful” teacher are centered around knowledge, content, lesson planning and ensuring that students attain that knowledge. Pedagogical content knowledge (PCK) can help individuals describe these attributes in themselves. This theory was first introduced by Lee Shulman in 1986 to describe the area of change between content knowledge and pedagogical strategies (Tuithof et al., 2021). Pedagogy is defined as “the science of teaching, instruction and training” (Ozden, 2008). This definition is from the educator's point of view and their own knowledge and implementation of their teaching methods. Content knowledge is defined as the educator’s extensive knowledge of facts, theories and principles related to their specific subject (Love & Hughes, 2022).

According to Love and Hughes (2022), high-quality teaching and student learning are equivalent to PCK. It is important that teachers completing alternative programs have a good understanding of both pedagogy and content knowledge. CTE teachers have a solid understanding of the content from their previous work experience, but the full

understanding of PCK is influenced by the teacher's understanding of both the content knowledge *and* how students are understanding the material (Ozden, 2008). The question is whether CTE teachers from alternative programs were educated and properly prepared to demonstrate their content knowledge via effective pedagogy, whether it be with others or fully understanding it for themselves. According to Bostock, the principles of teaching are the same regardless of teacher preparation route, but different methods of pedagogy should be employed depending on the discipline. Because "teacher education is predominantly generic" (Bostock, 2019, p. 605), however, there are limited opportunities to learn subject-specific pedagogy strategies during teacher training (Bostock, 2019). This may be the case with CTE teachers in alternative programs.

The basis of this theoretical framework employs Piaget's cognitive constructivism and Shulman's pedagogical content knowledge. Cognitive constructivism explains how individuals construct their knowledge through experiences with a focus on active engagement, critical thinking, and applying the knowledge over memorizing. This is especially relevant for CTE teachers who bring their industry expertise to the classroom and are tasked with adopting effective teaching practices and updating the curriculum to reflect the current workforce. PCK emphasizes the need for teachers to incorporate industry expertise with instructional strategies to help students learn.

Alternative certification programs play a role in equipping career switchers with pedagogical strategies, classroom management techniques and assessment strategies to enhance their teaching effectiveness. Nevertheless, more research on teacher effectiveness and self-efficacy need to take place. Studies suggest that career switchers may feel more prepared with subject-specific training. Teacher success encompasses

many topics ranging from subject knowledge and student engagement to adaptability and student and teacher reflection. This study seeks to examine the preparedness of alternatively certified teachers coming out of the program, their ability to manage a classroom and their ability to transfer content knowledge into effective instruction.

CHAPTER 3

METHODS

The purpose of this study was to explore the perceptions of career switchers when becoming career and technical education (CTE) teachers licensed through an alternative certification program. For this study, career switchers were defined as individuals who have held a position in a different discipline before deciding to become a teacher. The study aimed to focus on these individuals' perceptions of their preparedness for classroom management and instruction after completing their program, as well as their evaluations of their program's quality. These foci aimed to provide information to other career switchers looking to enter the field of teaching in CTE.

An alternative teacher preparation program allows teachers to gain licensure quickly, increasing teacher availability. However, as Bowling and Ball (2018) have noted, alternative teacher preparation programs have different requirements—and, often, curriculum—than traditional (undergraduate) programs, and there is more variation among alternative programs. This variation has led some to question whether teachers certified through alternative preparation programs are prepared to handle various aspects of a teaching career, especially as it pertains to student achievement (Jang & Horn, 2017).

Although the factors impacting their choices vary, CTE teachers often choose certification through an alternative preparation program (Bartholomew et al., 2018) because they are industry professionals with current licensure and degrees in their chosen field. Alternative programs are a considerable factor in attracting career switchers into

CTE programs. Hence, it is important to understand the perceptions of graduates from these programs to determine whether they provide high-quality training that adequately prepares career switchers to pursue another career as CTE teachers.

Research Questions

This study aimed to answer the following questions:

1. How prepared do individuals feel overall after completing the alternative preparation program?
2. How prepared do individuals feel to manage the classroom after completing the alternative preparation program?
3. How prepared do individuals feel to transfer professional knowledge to content instruction after completing the alternative preparation program?

Design

This study employed a basic qualitative study research method. Qualitative research is grounded in the idea that meaning is constructed by individuals through their interactions with their world (Merriam, 2002). This type of study aims to learn how individuals interact with their social world and what that means to them. The overarching hope of qualitative research is that these experiences are sufficiently similar in some way to allow general assumptions about all (or many of) the individuals who may share the same experience. Qualitative research often involves thematic analysis of interview data, which considers the experiences and perceptions of the individuals who participated in a specific event or discussed the same topic to identify common themes (Jowsey et al., 2021).

In this study, a series of semi-structured interviews were conducted with CTE teachers who changed careers and entered an alternative teacher preparation program. According to Baumbusch (2010), semi-structured interviews allow for more in-depth and spontaneous responses, which enabled me to better understand participants' perceptions and experiences. As will be discussed in greater detail later in this chapter, a set of two separate interviews of each participant was adopted based on Seidman's (2006) model to gain a greater understanding of the context and details of participants' experiences and to allow participants time between interviews to reflect.

Participants were interviewed individually using a series of open-ended questions that focused on the participant's perception of their chosen alternative program and how it did or did not prepare them to become CTE teachers. Individual interviews were conducted instead of focus group interviews. Although focus groups have a higher probability of encouraging individuals to share sensitive information, they are typically more difficult to coordinate (Guest et al., 2017). Additionally, interviewing in a group setting could have caused one person to monopolize the session, rather than everyone having the chance to share their thoughts. Moreover, interviewing the individuals separately helped the individuals feel comfortable answering the prompts about their experience without the pressure of groupthink, allowing them to provide more authentic responses (Cyr, 2017).

Given the strong link between teacher preparedness and student achievement (Whitford et al., 2018), interview questions focused not only on the participants' overall perceptions of how prepared they were after completing the alternative preparation program but also specifically how prepared they were to handle classroom management

situations and to transfer content knowledge from their industry to their instruction. I began each interview with a prompt and then allowed the interviewee to guide the conversation from that point. If needed, I asked additional questions to further explore each participant's perceptions and feelings as they pertained to the alternative program and their career change. This semi-structured method allowed for in-depth information and discussion of more sensitive topics (DeJonckheere & Vaughn, 2019).

Research Site

The research site was an alternative program in Metro Atlanta Georgia. Teachers who enrolled in this alternative program were full-time public school employees who worked on provisional certification and received a provisional salary while they completed the process of teacher licensure, which typically takes 1–2 years, although the typical duration of this program was 10 months in this study. The program follows local and state requirements for acceptance, including (a) taking and passing the Georgia Assessments for the Certification of Educators (GACE) assessments, (b) either having a job offer or already being employed through GCPS, and (c) being recommended to the program by their GCPS principal. The program also requires that individuals hold a bachelor's degree from an accredited program with a GPA of 2.5 or higher and complete the Georgia Educators Ethics Entry (360) Assessment (GCPS, n.d.).

In any given year, there are typically three to eight prospective CTE members participating in the alternative preparation program. In this program, participating teachers meet once a month, either on a weekday for 3 hours or a Saturday for 8 hours. During this time, teachers are instructed in various topics and were provided with

opportunities to develop and demonstrate skills such as writing lesson plans, using instructional strategies, and asking relevant questions.

Participants

Participants were selected from an alternative teacher preparation program associated with a school district in Georgia. I focused on teachers in the alternative program who were career switchers and who were preparing to become CTE teachers.

Inclusion Criteria

All participants in this study met the following inclusion criteria:

(1) They were new teachers, meaning that they were in their first to third year of teaching.

(2) They were becoming certified as a CTE teacher in a field such as computer science, communications, business, manufacturing, health science, public service, hospitality, construction, agriculture, human services, transportation, or engineering (Malkus, 2019),

(3) They were within the last 3 months of completing the alternative teacher preparation program or had completed the program within the last 2 years.

These criteria were selected to ensure that the sample consisted of comparably qualified and credentialed participants who met similar current standards for certification. It was also hoped that participants would share similar experiences in the program so that I could generate common themes regarding the perceptions shared in interviews. Additionally, the time period (new teachers in their first through third year of teaching, within the last 3 months of completing certification or having completed it within the past

2 years) was specified with the aim of ensuring that participants could remember specific instances during their time in the program.

Sample Size

The study aimed to screen as many participants as possible who fit the inclusion criteria. If the participants met the above criteria, they were invited to be interviewed by me. There were three individuals that were screened that met the criteria and agreed to participate in the study. Rather than a focus on quantity, I aimed to focus on in-depth interviews, asking each participant the same interview questions (Fusch & Ness, 2015) as well as questions for clarification based on participant responses. Given previous research (Fusch, 2015) as well as methodological recommendations (Guest et al., 2020, the sample size generated enough information to identify patterns and themes related to the research questions.

Sampling Methods

There were a few methods considered for sampling, including potential participant lists from the site where the research was being conducted, convenience sampling, and snowball sampling (Andrade, 2021; Etikan et al., 2015). Convenience sampling was used for this study. Convenience sampling is, as its name suggests, sampling from a source that is convenient for me to access (Andrade, 2021). It is used mainly in instances where it is not possible to collect information from the entire population (Stratton, 2021).

Convenience sampling can be effective in that it provides easy accessibility, availability, and geographical closeness to the researcher (Etikan et al., 2015). Through conversations with individuals who were known to have participated in the identified

alternative program, I identified participants (n=2) who fit the inclusion criteria of the study. Once the individual(s) had been identified, I asked them to share names of individuals whom they knew also met the inclusion criteria. This was a form of snowball sampling that I employed to increase the number of prospective participants (Naderifar et al., 2017). Snowball sampling can be used when dealing with a hard-to-reach population (Etikan et al., 2015). Each of the participants who met the requirements also worked in the same school district.

The potential participants (n=5) were each emailed by me to inquire about their interest in participating in this study. In the initial email (Appendix A), I provided a brief description of the study. If participants agreed to participate, they were sent a demographic survey (Appendix B) to fill out, preferably before the study started, the letter of consent (Appendix C) for them to review and sign prior to the interview, as well as the interview guide (Appendix D). Participants were informed of their right to ask for clarification about the interview consent form, that they could leave the study at any time with no penalty or negative impact to themselves, and that they would be identified in the study only through anonymous identifiers (e.g., Participant 1, Participant 2). Participants were interviewed in person or virtually depending on their preference and scheduling concerns. Additional screening of participants was conducted via the appropriate form of communication until the three (n=3) participants who were interviewed were selected.

Data Collection

The source of data for the study were semi-structured interviews. Interviews were conducted using open-ended questions from an interview guide (Appendix D), which allowed the participants to elaborate on their responses. It has been suggested that

rapport between interviewer and interviewee is built over time, and well before meeting the person for the first interview (Cormac et al., 2019). To facilitate rapport building, the researcher sent a friendly, conversational email with demographic questions (Appendix B) to each participant who agreed to participate, which they were asked to complete before the interview. Each interview, whether in person or virtual, began with introductions that facilitated continuing rapport building.

As mentioned above, an adaptation of Seidman's three-interview series was used to conduct the interviews. Seidman stated that people's behaviors are more understandable in context of their lives and the lives of others around them. This context was important for exploring the true meaning of the participants' experiences. The purpose of conducting multiple interviews, with time in between each one, was to gain context and details about the participant's experiences and allow them time to reflect on their meaning (Seidman, 2006).

The researcher adapted this model into two interviews instead of three. The principal reason for this adaptation was that Seidman's first interview focused on the participant's life history, which included information about their personal life in their younger years, their family, and friends. Because this study focused on the individual's career choices, the researcher was not interested in such personal aspects about the individual. Instead, in this study, the first interview consisted of a focused career history instead of a life history. This career history encompassed personal information about the participants as it related to their education and previous employment. The other portion of the first interview involved details of the participants' lived experiences in the alternative preparation program.

The second interview concentrated on the participants' reflections on the meaning of their experiences. Although the researcher reserved the option for a third interview, if necessary, to clarify information and to ask further questions, after completing the second interview with each participant, the researcher did not feel the need to conduct a third interview. The researcher allowed two weeks between each interview. This time was necessary not only to provide the researcher with time to transcribe and reflect on each interview but also allowed for the participants to reflect on the information they shared while not losing the connection between the interviews (Seidman, 2006).

Each interview lasted between 45–60 minutes, but there was no time constraints imposed by the interviewer. The interviews occurred in person or virtually using Zoom. For the in-person interviews, the researcher located a neutral location such as the participant's classroom to conduct the interviews. This setting provided a quiet, comfortable environment for participants to express themselves without distraction. Virtual interviews were scheduled in consideration of participant convenience and, sometimes, weather conditions. Advantages to the virtual interview setting included that participants living at a greater distance from the researcher and those with scheduling conflicts or other barriers could participate. Flexibility was key to ensure that participants were willing to continue the study. Although technical issues that could affect the data are always possible in virtual interviews (Peters & Halcomb, 2015), the researcher did not encounter any technical issues with the Zoom interviews.

With participants' permission, interview sessions were audio/video recorded or, in the case of virtual interviews, screen recorded. This allowed the researcher to transcribe the interviews, which provided a written account of each participant's experiences and

allowed the researcher to review their answers to create a coding system to identify common themes amongst participants. In addition, notes were taken during each interview. The transcribed interviews and notes were used to create a one-page summary of each interview. This summary (see Appendix E-F) was provided to the participants after the interviews for them to review. The summary provided pertinent details about the interview and was used to make sure that the researcher was describing the descriptions provided by the participant accurately. Participants were asked to clarify or make changes to the summary as well as add any information that may have been missing that they wanted to share.

Addressing Potential Bias

Because the study involved a process—alternative certification—that the researcher had also experienced, it was important that this personal experience be set aside to ascertain the experiences of the participants and what that meant for them. As Noble & Smith (2015) stated, one way for a researcher to reduce bias is to interact with other researchers about the study and its findings. To minimize bias, the researcher standardized the interaction between participants. This was done by emailing each participant the same email with the demographic survey, consent form, and information about the researcher. In addition to these processes, I sent each participant a copy of the interview guide with the questions. I then consulted with a peer for review (Mackieson et al., 2018) and had them read the transcriptions of the interviews. The peer was asked to review the documents and provide any feedback or suggestions to help strengthen the study.

Lastly, to check for trustworthiness, I did a form of member checking and provided my participants with a summary of each interview for which they participated. They were asked to read through the interview and provide clarification of topics or statements as well as answer any follow-up questions I had for each interview. The member checking helped me to ensure that I interpreted what the participant stated was what and how they meant to say it (Motulsky, 2021). In addition to acknowledging potential bias and preserving the trustworthiness of the study, I also wanted to ensure that I maintained confidentiality. I did this by documenting and maintaining my own records as thoroughly as possible. I kept the records on a hard drive that was locked up every day as well as electronic copies on a password protected cloud storage. All these measures helped to ensure that the study results were valid (Noble & Smith, 2015).

Data Analysis

Once the interviews were complete, the researcher transcribed the interviews to begin coding and forming themes from the information collected. Transcription helped the researcher identify keywords that would be essential for coding (Parameswaran et al., 2020). The researcher used a transcription software to transcribe the recorded interviews, then listened and read through the transcription to help reduce errors. Manually checking the transcription also helped the researcher become more familiar with the data and generate a more thorough analysis (Kiger & Varpio, 2020). Thematic analysis, which involves analyzing what individuals have said and identifying and reporting on the themes concluded from the data (Bennett et al., 2019), was used to answer the research questions regarding career switchers' perceptions of alternative certification programs and their preparedness after completing such programs.

Coding

The researcher identified codes based on the transcription and then sorted the codes into themes. Bengtsson (2016) recognized four stages to the coding process: decontextualization, recontextualization, categorization, and compilation. These stages help qualitative research maintain trustworthiness.

Decontextualization focuses on “what is going on.” That is, reading through the transcribed data to fully understand what each participant was saying, recontextualization involves checking that all content has been reviewed. I read through the transcriptions, notes and emails that were sent back and forth between me and each participant. As I was going through the documents, I began the process of categorization which involves chunking the condensed information. At this point, I read through the data and began listing key terms or phrases that were emphasized by the participant. Compilation involves writing up the results. The full results are presented in Chapter 4.

Throughout the coding process, the researcher was aware that this process may take focus away from the participant, thus weakening the connection between participant and researcher (Parameswaran et al., 2020). I took steps to minimize this possibility by taking minimal notes during the interviews. Once the interviews were complete, I used a transcription software to transcribe that data and then I listened to the recordings and checked through the transcription for any mistakes. A summary of each interview was written and sent to the participant to make sure that I had interpreted what they said correctly. The interview transcription for one interview was completed before moving on to complete the next transcription. This ensured that the participants information was theirs and not mixed up with another participants.

The information from the transcribed interviews was studied and keywords were identified according to Bengtsson's (2016) stages. The researcher used Microsoft Word to list the identified keywords. In this process, I recognized repeated keywords from the participants' interviews. These keywords represented the participants' perceptions and experiences regarding becoming a CTE teacher as a career switcher in an alternative certification program.

After the keywords were identified for each participant, coding was performed. Coding helps reduce large amounts of data into meaningful smaller pieces (Maguire & Delahunt, 2017). In this process, I identified patterns among the participants' interviews and began to categorize these patterns based on their repetition among participants. Categorizing this information was performed in the same way for each participant's interviews (Vaughn & Turner, 2016). I used inductive coding. Inductive coding allowed for me to use the raw data, the interviews/transcriptions, notes and interview summaries, to create the themes (Chandra & Shang, 2019).

Following coding for patterns, I created themes by organizing repeated ideas based on what the ideas meant and how those meanings linked the data to the research questions (Naeem et al., 2023). A theme is defined as describing or organizing observations or, at maximum, interpreting aspects of a phenomenon (Boyatzis, 1998). I also used theming to include extended passages in the form of sentences to capture the essentials of the participants' meaning (Saldaña, 2013). I searched for how the themes were similar, different, and what relationship may have occurred between them (Gibson & Brown, 2009). The themes helped bring meaning and identity to recurring experiences

and were used to explore each participant's beliefs, constructs, and identity (Saldaña, 2013).

I concluded the analysis by making assertions about the meaning of these themes to form relevant conclusions that helped answer the research questions. The results from this thematic analysis included a detailed description of the codes, patterns and themes as well as my interpretation of the data to help readers understand my decisions during the analysis (Castleberry & Nolen, 2018).

Because coding and generating themes was an iterative process (Bennett et al., 2019), member checking was performed by asking participants to verify information to determine the trustworthiness of the data (Bengtsson, 2016). I generated a one-page summary of each participant's interviews and provided it to the participant for their review. If the participant did not have anything to add to the information provided, the second interview was conducted. During the second interview I used the same approach to coding as with the first interview. A summary of the second interview (Appendix E-G) was also provided to the participant to review and make corrections in case I did not record a concept accurately.

Subjectivity Statement

I was the main researcher and interviewer for this study, I was aware of my bias because I had previous experience with an alternative teacher preparation program. I worked in the healthcare field and went to school for about 10 years before I became a teacher. I was employed as a teacher for 2 years before I decided to get my teaching certificate. I went through the alternative teacher program because it was cheaper, I

already had a master's degree and did not need another, and the program took only a year to complete. These factors were major points in my decision to choose this program.

This study was necessary to gain information from program members that could be used to improve it. In my discussion with other individuals in the same program at the same time, I realized that many of us assumed that we had not received enough training in certain areas and too much in others. Although CTE teachers with years of employment and higher levels of education choose alternative routes for their ease and affordability, this program has failed to provide CTE-specific resources that supply effective examples for training new teachers. My main purpose in this research was to ascertain if others coming out of the program had the same experience. I wanted to gain their perspective without the need for participants' responses to be constructive or politically correct. I wanted to record true experiences to produce solid recommendations for the program. Switching careers is a major decision for individuals, and it is helpful for them to know that the certification program they choose will make sure that they are equipped beyond content knowledge.

CHAPTER 4

FINDINGS

This qualitative study was designed to explore career switchers' perceived preparedness to become a career and technical education (CTE) teacher after completing an alternative certification program. The focus was on how prepared individuals were overall after completing the program, how prepared they were to handle classroom management, and how prepared they were to transfer content knowledge. I used interviews with three career switchers who were alternatively certified as the primary method of data collection. These individuals had the opportunity to share their insights on their level of preparedness after completion of the alternative program. The research questions addressed were:

1. How prepared do individuals feel overall after completing the alternative preparation program?
2. How prepared do individuals feel to manage the classroom after completing the alternative preparation program?
3. How prepared do individuals feel to transfer professional knowledge to content instruction after completing the alternative preparation program?

Themes were selected from participant responses and were directly related to the research questions. The themes were supported by Piaget's theory of cognitive constructivism and Shulman's theory of pedagogical content knowledge. Questions one

and two were encompassed within cognitive constructivism and question three was encompassed within pedagogical content knowledge.

Participant Career Demographic Profile

This section details the career demographic profile of the three participants. The profile focuses more on the individual's previous and current career and less on personal characteristics. The study participants had differences in profile but had several similarities. Each participant completed a quick survey to provide the information provided in Table 4.1. To protect individual identities, participants will be recognized as Participants 1, 2 and 3 throughout. These identifiers also correspond to the order in which the interviews were conducted.

It was imperative to acquire the career profile of each participant, as it may be representative of the community of individuals in alternative certification programs. Demographic data are used to characterize the sample at hand, which can provide critical information when comparing findings across different studies (Call et al., 2023). The career demographics collected from the individuals of this study provided information on their previous careers, educational background and their current teaching careers.

Participant 1 was previously employed as a pharmacy technician and before their employment with the school district as a chronic disease health educator. They earned degrees in biology (bachelor's) and public health (master's). They worked in their career field for a total of 3 years, were hired in the school year 2021–2022, and worked for 1 year before entering the alternative certification program in 2022–2023. They were certified to teach healthcare science and broad field science and currently teach healthcare science to high school students in 9–12th grades.

Table 4.1

Career Demographic Profiles

Identifier	Previous career	Degree(s)	Teaching certificate	Total years teaching	Years teaching before alternative program	Content area currently teaching	Academic year in alternative program
Participant 1	Pharmacy technician, chronic disease health educator	Bachelor of Science (biology), Master of Public Health	Healthcare Science and Broad Field Science	3	1	Healthcare science	2022–2023
Participant 2	Operations processor for a major banking institution	Bachelor of Business, Master of Business Administration	Business Education (grades 6–12)	4	2	Business education	2023–2024
Participant 3	Clinical exercise physiologist in cardiac and pulmonary rehabilitation	Bachelor of Science (exercise physiology), Master of Science (clinical exercise physiology)	Healthcare Science	3.5	1	Healthcare Science	2023–2024

Participant 2 worked as an operations manager at a major banking institution and earned a bachelor's degree in business and a master's degree in business administration. They were certified in business education grades 6–12. They have worked for a total of 4 years as a teacher and 2 years as a teacher before they started the program. They worked one of those two years in a different state. They are currently teaching business education to grades 9–12. They began the program in fall of 2023 and took an extended timeline to December of 2024.

Participant 3 was previously employed as a clinical exercise physiologist in cardiac and pulmonary rehabilitation. They hold a bachelor's degree in exercise physiology and a master's degree in clinical exercise physiology. They currently work as a healthcare science teacher and have worked for 3.5 years. They worked for 1 year before joining the program in 2023–2024 and were certified in healthcare science.

These participants participated in a series of two interviews with a minimum of 1 week between each interview. A mixture of in-person and online interviews were conducted to accommodate participants' schedules. Participants were asked to reflect on their experiences in their chosen alternative programs, and the following findings were the results of those interviews.

Presentation of the Findings

Emergent themes were generated after completing a series of interviews with each participant. Everyone invited to participate in the study was provided with background information about me, a consent form, a list of guiding interview questions and the career demographic questions. They were asked to read through all the material, sign the

consent form if they were willing to participate and answer the form containing the demographic questions.

In the interviews, the study participants were asked to reflect on their experience in their chosen alternative certification program. Their reflection focused on their level of preparedness coming out of the alternative program as it related to their overall feeling of preparedness, ability to handle classroom management and ability to transfer their previous professional knowledge to content knowledge.

Theme 1: Perceived Lack of Preparedness

In answer to the question of how prepared individuals described they were after completing the program, all the participants shared that overall, the program was not as beneficial in preparing them as teachers as they had hoped. Some aspects of their preparation stood out to them such as lesson planning, providing them with a mentor, and providing a few resources related to classroom management and dealing with diverse students. However, participants conveyed that it was a lot of busy work and Participant 1 even stated, *"I wouldn't even say I wouldn't say rigorous necessarily, but I, it was a lot of work to keep up with. And if you did not keep up with it, it would have been very, very stressful."*

Participants could not pinpoint or remember one instance where the program improved their overall teaching ability. There were several aspects that may have been helpful as individual learning items, but none of them culminated in an overall feeling of preparedness. All the participants had already earned a master's degree in their fields and all of them had taught for at least 1 year before they entered the alternative program, so they had some experience with handling a classroom before they entered the program.

This experience played a major role in their decision to enroll in the alternative program, which would allow them to continue working as well as earn their teaching certificate via the quickest route possible.

When outright asked if they were prepared for teaching by the program Participant 2 stated, “I don’t know that it really prepared me, having taught before.” They go on to explain that being in the program was a learning experience and they were having to learn how the program wanted things done versus how their local school asked for tasks to be completed. So not only were the teachers expected to keep up with the different assignments they were also doing double the work to make sure that their local school requests were being met.

Theme 2: Mentor Made a Difference

Even though participants could not, with certainty, say that they were fully prepared by the alternative program, each participant stated that the support system they were provided with was a major reason why they completed the program. The primary support source was a mentor, appointed by the alternative program, who was also a teacher in the participants’ building. Each teacher met with the mentor at least once a week to discuss any assignments, questions, or concerns. This individual was acknowledged by each participant as a great help during the program, and participants appreciated that they can still call on their mentor for support. Participant 1 stated: “*I feel like my mentor from the program was really helpful*.”

Participant 1 used the support of their mentor to help with different formative assessments and different classroom activities to help increase student engagement. They stated that their mentor teacher was not a CTE teacher, but they helped with the basic

pedagogy of teaching which was something that the program could have put a little more time. Participant 1 stated that there was "*I think their goal was to teach us some of the pedagogical processes without having to go in-depth within the pedagogy itself.*" They admit that the mentor assisted greatly with this in-depth dive into the pedagogical processes that others, who did not have a more involved mentor struggled with some aspects of the program.

Other individuals who supported the teacher were the supervisor and the assistant principal. Both individuals were appointed by the program, with the supervisor being the main person observing the individual and giving them feedback on their assignments and video lessons. The assistant principal could also observe and provide feedback to the individual but in an informal manner. These three support sources were a part of the team to show participants that the school is actively supporting the teachers in the alternative program. Lastly, the "table mates" and "team teacher" provided support in answering questions and as an informal person to work out issues with and discuss assignments that could be confusing. Participant 2 stated, *"We did a lot of collaboration. And if we had a question or needed something, someone would say, you know, oh, you can talk to this person, and they'll help you."* The individuals appointed by the alternative program and the additional sources of help played a crucial part of the success of each teacher completing the program. They also made up the team that debriefed the individual's experiences in the process. However, other than the mentor, the program support stopped once participants had completed the program.

Theme 3: Knowledge of Lesson Plans

Although participants could not say that they were fully prepared by the alternative program, they did leave with some knowledge and skills that they did not have before. The most useful assignment was for lesson planning. Individuals had to pick a topic from their class that they were going to teach and plan an entire lesson from start to finish. The participants in this study did each have at least 1 year of teaching in which they were planning and executing instruction, but this assignment helped them learn about lesson flow, ways to differentiate concepts, and different strategies for assessment.

However, there were not enough practical examples that could be used to help with assignments. Participants stated that more examples of the assignments and video lessons would have improved their understanding of how the program wanted the lesson to be organized. Examples would have especially been helpful if they had pertained to CTE content to better help CTE teachers. As Participant 2 stated:

> *No one could give me an example of what my commentary compared to my video needed to look like…There were videos that they provided us and was like, look at these videos. This is what it should look like. But again, they were old and it was it related to something totally different. I realized that it's probably very difficult to get a video for each subject that we have in Gwinnett County School. But I feel like it's something that time should be invested in. Even if you're only getting the video, you know, every two years or something like that.*

Participant 3 agreed, stating, *"I would say my mentor probably gave me more examples than the…program."*

The program's focus on core content and special education content did not go unnoticed by the participants, who discussed this exclusive focus was detrimental to their preparation specifically to teach CTE.

Theme 4: Untapped Resources for Classroom Management

Although no CTE-specific examples were provided by the program, plenty of other resources were provided. The main topic of these resources centered around classroom management. The books that were provided focused on modeling and redirection strategies. They also helped in dealing with teens, especially difficult teens. However, there were no instances to see interactions play out, and much of the practice modeled throughout the course was tailored to elementary-age students, such as clapping and holding a finger in the air and one to the lips to gain students' attention. Participant 1 elaborated on the problems with these materials:

> *I think that that was a little bit harder because I think that the individuals were very, very, they did as much as they could to make sure that they could apply it to the high school level. But I think a lot of it was very geared toward elementary and middle as they were a former elementary and middle school teachers…But I do think that, that piece was definitely missing about more applicable things that one can do within a high school. They would constantly say, like, you know, well, these things are things that you can transfer into high school. But as a person who's very concrete, I was like, well, how do I transfer it to high school level? Like, if I start clapping, my kids are going to look at me like I'm crazy.*

Although these strategies did not work well for the participants of this study because they teach high school students, it should be noted that each participant worked for a year or

more as a teacher before joining the program. During this time, they had each developed their own strategy to handle a large majority of classroom issues. As Participant 3 explained, *"I also think I had my classroom management down pretty well by the time I got into the program, so I'm not sure how much of that improved throughout the program, if that makes sense."*

Individuals were given additional resources related to managing diverse learners, such as multilanguage learners, students on individualized education plans and students with 504 accommodations. These resources were usually additional classes in which the teachers were required to enroll. Participants 1 and 3 did not seem to mind the classes, as they did learn something from them; however, Participant 2 found that this extra requirement was not helpful and seemed overwhelming with all the other assignments that were due: *"it turned into a let's just get it done. So that, that's not something that's outstanding."*

Theme 5: Limited Support for Transfer of Content Knowledge

Teachers were provided with resources related to dealing with different abilities in the classroom and dealing with classroom management, but there were no resources related to transfer of content knowledge. As far as feeling prepared to transfer knowledge coming out of the alternative program, participants discussed that they did not receive help with this preparation. Teachers did say that not receiving support in this area was not a hinderance, although this could be because the participants did not start the program until their second year of teaching; thus, they had already worked out a lot of the kinks in transferring content knowledge to their students in that first year.

Because CTE teachers are hired based on their experience in certain fields and many years of job experience, they come with a depth of knowledge on the content they chose to teach. Being able to communicate how one would teach a topic via a lesson plan was the focus of the program. The program did not offer content-specific materials and had no examples from previous years to assist CTE teachers if they were struggling. From Participant 3's perspective, there was an emphasis on making the material relevant to students: *"No, I think that that was just, that's just the experience and practice. But no, they definitely stress the importance of making things relevant."*

Participant 2 was emphatic in stating that the examples that were given were "*geared towards whether special ed or core classes.*" She admits that this was difficult because her background was business, and it was a hard to switch her thinking over to different aspects of teaching. She stated, "*some of the things that are done in math class are not done in business classes…there is a such thing as business writing that's very different from educational writing*." Being able to work from both sides of the spectrum should have been an aspect the alternative program focused on more with their CTE participants.

Conclusion

These themes were a result of participants' reflections on their feelings regarding their level of preparedness, classroom management and transfer of content knowledge from their alternative program. I synthesized the interviews to make meaning out of the responses received to gain an understanding of the participants perceptions.

CHAPTER 5

DISCUSSION, IMPLICATIONS AND CONCLUSION

The data collected from participant interviews offered great insights into some individuals' experiences after they completed an alternative certification program in preparation to teach career and technical education (CTE). The thematic analysis identified five key themes. Each highlighted some strengths and weaknesses within the program. All but one of the themes succeeded in answering the research questions:

1. How prepared do individuals feel overall after completing an alternative preparation program?
2. How prepared do individuals feel to manage the classroom after completing an alternative preparation program?
3. How prepared do individuals feel to transfer professional knowledge to content instruction after completing their alternative preparation program?

This discussion examines these themes in relation to answering the research questions. The hope is that connections between participants' reflections and broader implications for CTE teachers who switched careers and completed an alternative certification program can help inform new participants, administrators/supervisors of teachers and directors of alternative programs.

Participant Experience Summary

Before the questions can be answered it is imperative that the participant's experience throughout the program is highlighted. To better understand each participant's journey

and how they experienced the alternative preparation program, a participant experience summary was created. Each participant experienced the program in their own way with some similarities between them but many differences. A common theme amongst the participants is the lack of CTE-specific support from the program. The summaries help to show the uniqueness of everyone's experience even though they went through the program at different times in their career as well as in separate years from each other. A more detailed account of the participant interviews can be found in Appendix E-G. A quick overview of the differences and similarities can be found on Table 5.1.

Participant 1

The participant viewed the alternative program as a success for them, particularly with strong support from mentors, school staff, peers and their family. While they believed the program was designed for career switchers and provided some helpful instructional resources, it lacked industry-specific examples for CTE teachers. The workload was significant, with six major assignments per semester and the time commitment was extensive with monthly meetings and extra online coursework.

The participant gained more value from real classroom application such as observing veteran teacher's classroom management and instructional pacing. The participant admitted that their prior teaching experience, having taught a year before joining the program, reduced their need for certain foundational supports. The mentorship withing the school was especially beneficial for applying strategies like formative assessment, differentiation, and student engagement.

In the second interview, the participant noted that they had a solid grasp of transferring professional knowledge into teaching. The program's modeling of the

Table 5.1

Similarities and Differences in Participant Experiences with the Alternative Certification Program

Category	Similarities	Differences
CTE-Specific Support	All agreed the program lacked strong CTE-specific support	Level of dissatisfaction varied; Participant 2 most frustrated
Perceived Program Effectiveness	All relied on external support for success	Participant 1 most positive, Participant 2 most negative
Prior Teaching Experience	All had prior teaching experience	Varied experience levels and settings
Workload & Assignments	All found workload heavy and time-consuming	Participant 2 found it hardest to manage
Lesson Planning	All noted focus on lesson planning	Participant 2 least satisfied
Classroom Management	All noted lack of hands-on training	Participant 1 used experience; 3 wanted modeling
Support Systems	All relied on mentors and local support	Participant 1 had broader support network
Observation Opportunities	All valued observations	Participant 3 found setup difficult
Feedback and Assessment	All reported inconsistent feedback	Participant 1 had debrief; 2 lacked clarity
Transfer of Content Knowledge	All relied on personal experience over program	Participant 1 most confident; 2 least supported
Post-Program Support	All noted need for continued support	Participant 3 had informal support; 1 wanted formal

gradual release model helped with lesson placing, though the templates for lesson plans given by the program often conflicted with content needs. For example, the participant felt that the instruction of the model did not cover the flexibility in not going through the stages in order. The participant felt that they were stuck to model the way it was designed when this was not the case. Their mentor helped them to understand that different parts of the model could be done as various points in the lesson depending on what the teacher wants the students to achieve for the content.

At the end of the participant's time in the program they were allowed to debrief with members of the alternative program team. The participant described this meeting as an overall presentation. The participants got to present their final findings for one of the assignments and listen to the experiences of their peers. At not point during this debrief were participants allowed to provide formal feedback. The participant would have suggested ongoing mentorship and more professional development after program completion.

Participant 2

The participant had many struggles with the alternative program. They described it as difficult and not well-suited for CTE teachers. They felt the program focused a great deal on special education and core content areas. Many of the assignments felt like busy work and they were provided no clear examples or adequate instruction. They were also required to take additional courses regarding dealing with teens, special populations of students and a reading course. These classes were taken simultaneously as the alternative program and managing their classroom duties and assignments became overwhelming.

Participants were provided limited classroom management training. The participant stated that the program provided books and strategies like differentiation and “turn and talk” to help with student engagement. However, the application of some of these strategies were often impractical given the participant’s classroom setting.

In the second interview, the participant emphasized the need for more authentic observation opportunities and practical application of teaching strategies. They recommended more hands-on training and concrete instructional examples. The explained that the program lacked in helping experienced teachers transfer their knowledge to students, particularly given their prior teaching experience. Participant 2 had taught one year in a private school setting and one year in their current county before joining the program. The participant expressed that they were overloaded with assignments and suggest that fewer, more focused tasks would be more helpful.

The most valuable support the participant received came from their mentor, who offered consistent guidance. They also had help from their supervisor (provided by the county) and their local school administrator. Overall, they discussed collaboration and peer support were key factors in their success, not the program structure itself.

Participant 3

The participant entered the alternative program in their second year of teaching. They opted for the alternative program because they already had a master’s degree and did not want to pursue another graduate degree to become certified to teach. They admit that the program was helpful in areas like lesson planning and basic classroom management. They spoke a lot about the gradual release model and how that helped them to practice the lesson flow. The workload was demanding, with both online and in-person

components, lesson recordings and reflection assignments. The participant state that the classroom management strategies provided were useful but that the program lacked the hands-on training component that would have made this more useful in their individual classroom. The program did offer support to assist the participant with multilingual learners, but it was after the participant sought out assistance.

The participant state that their mentor played a key role throughout their experience especially in navigating assignments, arranging classroom observations, and finding instructional resources. However, the participant noted several challenges. They were required to arrange their own observations of other teachers in various content areas to complete certain assignments. The feedback for these assignments was inconsistent and the participant was often confused on how to move forward with other assignments. The participant utilized local school personnel, their mentor and partner teacher, for help with content-specific questions as the program did not provide help in this area. After completing the program, the participant stated that they only received support informally by their mentor and that continued mentorship was a needed improvement from the program.

Answering: How prepared do individuals feel overall after completing an alternative preparation program?

Question one regarding how prepared individuals were overall after completing the program can be answered using Theme 1: Perceived Lack of Preparedness and Theme 3: Knowledge of Lesson Plans. Theme 1 discusses the participant's dissatisfaction with their perceived preparedness following the completion of the program. The program did prepare individuals with many different aspects of teaching. The participants main issue

was that there were too many aspects being taught for too short a period and not enough emphasis on things that would have benefited them throughout their career.

While participants recognized the usefulness of assignments, they struggled making connections with the assignments enhancing their teaching abilities. The dissatisfaction seems tied to two main factors: their own prior experience and education and the program's lack of practical relevance. All participants had already earned a master's degree and had at least 1 year of experience before enrolling into the program. This may have caused the program to feel less impactful, since participants stated that assignments seemed like busy work. CTE teachers are tasked with incorporating their industry experiences into practical applications (Omar et al,. 2018b) and a certain level of that ability is tied to how prepared they feel with pedagogical content knowledge (Yilmaz, 2011) to assist students in being successful with the content (Parikh et al., 2020).

Additionally, the individuals had certain expectations of the program. Participants described the coursework as time-consuming and not rigorous enough to help improve instructional skills. This insufficiency led to individuals expressing a need to have more practical experiences in the form of observations and examples of the material that they were expected to teach. These experiences were expressed as key elements to make teachers effective educators (Bar-Tal & Gilat, 2020). The program's failure to provide these resources highlights a potential gap in aligning the program content with the needs of experienced CTE teachers seeking certification.

Theme 3 pertaining to the knowledge of lesson plans helps to answer question one as it is one aspect of pedagogy that can have a positive influence on teachers being

effective (Özden, 2008) and feeling more prepared. Participants completed a series of assignments throughout the program and noted that the lesson planning assignments were one of the most beneficial program requirements. The assignments provided direction and structure for improving instructional delivery, assessment strategies, and differentiation techniques.

However, there was an overwhelming level of frustration related to the lack of practical examples, especially for CTE content. The absences of these resources led individuals to become discouraged when trying to complete assignments and led to a great deal of stress. Participants pointed out that being provided with examples more suited to CTE content areas would have significantly improved their understanding and implementation of the lesson plans they were tasked with completing. There was also an emphasis on the resources that were provided being out of date and tailored to a different age group than what the participants taught. Participants attempted to utilize these resources but overall did not find them helpful.

Answering: How prepared do individuals feel to manage the classroom after completing an alternative preparation program?

In answer to the question, how prepared do individuals feel to manage the classroom, Theme 4: Untapped Resources for Classroom Management was used. The program provided some resources about a variety of topics but, there was limited resources related to classroom management. Flower et al., (2017) stated that components of a qualified teacher are classroom and behavior management. Poor management of the classroom has been said to have an impact on instruction for all parties involved (teachers, distracted students, etc.)

The resources that were provided were more suited for elementary and middle-school settings and less applicable to the settings of the participants of this study, who taught high school. Participants stated that the strategies modeled in the program such as clapping and signaling are largely ineffective for high-school students. In addition, the strategies would have been better suited for participants to learn in their first year of teaching instead of their second or third years. Classroom management is a main area of concern for first-year teachers especially as it relates to timing and managing students (Uriegas et al., 2014). Because the participants had worked as teachers in the year prior to joining the program, they had already developed classroom management strategies, therefore limiting the value of the program's resources.

The program did provided books that individuals could read, but this was on their own time, and the assignments were too time-consuming to commit to reading unnecessary material. Despite this general lack of relevant resources, the program did emphasize working with diverse learners and providing strategies to engage students with IEPs, 504s and those with different language backgrounds.

Answering: How prepared do individuals feel to transfer professional knowledge to content instruction after completing their alternative preparation program?

Lastly, to answer the question, how prepared do individuals feel to transfer professional knowledge to content instruction, Theme 5: Limited Support for Transfer of Content Knowledge was used. The program provided abundant resources for a variety of topics throughout; however, participants reported a lack of resources or strategies relating to transferring prior professional knowledge into effective teaching practices. This created a gap for participants that they admitted to filling in with their 1+ years of

teaching experience prior to joining the program. Even though CTE teachers often possess deep content knowledge from their prior careers (Love & Hughes, 2022), the ability to integrate that knowledge with pedagogical methods is where they reported feeling underprepared.

This supports Bostock's (2019) assertion that alternative certification programs tend to offer generic teacher education, leaving limited space for subject-specific pedagogy, especially in non-core disciplines like CTE. Though the program did not help with the specific resources needed to transfer previous knowledge, it did heavily emphasize making the material relevant to students to engage them more effectively in the lesson. The lack of guidance from the program in this area caused participants to rely heavily on their own past experiences and the support they received from their support group. It is the suggestion that the program prioritizes the need for more deliberate instances of practice with transferring content knowledge into effective pedagogical application, especially for career switchers in specialized field.

Interesting Revelation

One revelation that came about during this study was the support and mentorship that the participants received as a result of being in the alternative program. Each participant consistently praised the provided support network. Mentors, supervisors, assistant principals and peer collaboration played pivotal roles in guiding participants through the program. The weekly mentor meetings offered a chance for participants to get more tailored guidance, have their questions answered and gain clarity on any topics or assignments they may have found difficult. The informal peer networks, also created

by the program, were highlighted as valuable to participants in helping with troubleshooting and understanding expectations for the assignments.

Despite this incredible system of support during the program, there was a lack of continued support once participants completed the program. Walsh & Jacobs (2007) state that alternative programs are "woefully inadequate" at providing support to their participants. However, participants need extensive mentorship to acquire necessary skills to be effective teachers, especially if they are in their first year (Larios, et al., 2022).

The alternative program was successful in partnering participants with a mentor that guided them throughout their time in the program but after the program participants did not keep this benefit. Though participants stated that they voluntarily kept in contact with their mentors, they did not want to add to the individual's workload unnecessarily since they had completed the program. The mentors were still willing to assist the participants with their questions but providing extended mentorship and support through the program is of great need.

The opportunity to have a mentor was invaluable to the participants of this study and each of them stated that it would have been beneficial to have access to their mentor after the completion of the program. It may also be helpful to provide mentorship to new teachers in general, whether they are starting an alternative program or just completed a traditional program. Aspects of the mentorship that programs should be consider providing include veteran teachers who allow individuals to observe their teaching, receiving resources, help with planning lessons, ability to discuss different learners and how to reach them and the ability to work through problems as they arise (O'Connor et al., 2011).

Implications

The findings highlight many critical issues in the alternative certification program's delivery and structure of material. Implications for participants is that the program was redundant and loaded with assignments that may not be beneficial to professional learning. The program did not seem helpful for teachers with prior experience, and it lacked content specific to CTE. Participants saw great value in and attributed their success to their mentorship and peer collaboration. A significant shortfall of the program was the absence of practical examples for assignments, especially those relevant to CTE. Participants should consider time commitments that the program would require to complete assignments and attend sessions. It is also helpful to advocate for themselves if they are not understanding the material especially if they are certifying in the CTE field.

The implication for administrators is that a mentorship program should be implemented early in the new teacher's career. Providing someone that the individual can receive guidance from whether they attend an alternative program or completed a traditional teaching certification can be crucial in the success of the teacher. It may also decrease the amount of dissatisfaction that some teachers can experience because they are overwhelmed with the day-to-day tasks and learning new skills.

It may also be necessary for administrators to determine during the hiring process the certification needs of new hires. Because most individuals are unaware of the routes to certification, especially teachers that are hired to fill high needs areas, it would be helpful for administrators to have a conversation with individuals. This conversation can help in two ways: give the individual someone knowledgeable to discuss the options of

certification and allow them to begin to coordinate with program directors of alternative programs about requirements and continuing support of participants.

The implications for program directors are that they have a responsibility to provide relevant coursework, flexibility and rigor of coursework and early intervention and continued support. Participants of this study stressed the importance of providing teachers with examples relevant to the subject in which they teach. Program directors should consider differentiating instruction or even certification pathways based on a candidate's background and prior content knowledge. Not only will this provide new participants with necessary skills it will also limit the frustration individuals have with the one-size-fits all approach to the content.

Program directors also need to consider the flexibility and rigor of coursework. Participants stated that assignments seemed like busy work and that keeping up with the full-time job of teaching was often overwhelming. Directors should find a way to balance the number of assignments with the rigor of the assignments to prevent excessive "busy work" but to also provide the participant with necessary skills.

Lastly, the program directors should consider extending the crucial mentorship program that was developed for participants throughout the program. Each participant attributed their success in completing the program to their mentor but called attention to the lack of support after the program was complete. Directors should consider working with hiring administrators to determine which individuals would be successful candidates for the alternative program. They can then start to provide support with lesson planning, instructional strategies, and classroom management strategies. The support can allow

individuals to observe the new teachers and be observed by new teachers, provide feedback and answer questions when needed.

Relation to Frameworks

Cognitive constructivism and pedagogical content knowledge were the frameworks used to anchor this study. The participants' prior experiences and education aligns with cognitive constructivism. Learners are actively constructing knowledge based on their previous understanding (Stapleton & Stefaniak, 2019), and the program's failure to relate the content to the participants' existing knowledge limited its perceived effectiveness. However, the program offered a comprehensive support system while individuals completed the program, which allowed for the participants to have the social interactions that cognitive constructivism emphasizes as crucial for learning. Furthermore, the interactions with students in the form of classroom management and engagement are also impacted by cognitive constructivism. A teacher's ability to interact with students, foster active participation and create a positive classroom environment are critical for student learning.

Even though the program provided several strategies and resources for the participants, the lack of relevant content based on subject area and grade level is obvious. Providing strategies that participants could use in high-school environments could have a greater impact on developing relevant pedagogical content knowledge (PCK), or the ability for an individual to integrate content-specific knowledge with suitable pedagogical approaches to help learners understand the topic (Voogt et al., 2012). CTE teachers already have a considerable understanding of content knowledge and attend the alternative program to gain insight into pedagogy and the integration of this content into

classroom instruction. The program should have allowed for the blending of both aspects of PCK to facilitate effective instruction (Segall, 2004). The program oversight in not customizing instructional strategies for high-school environments could have limited the participants' ability to develop PCK.

Limitations and Delimitations of the Study

While this study offers insights into the strengths and weaknesses of the alternative certification program, there were limitations to consider. First, the study only focused on CTE teachers who were also career switchers, which left out a small percentage of prospective teachers who entered CTE without a previous career. Additionally, the alternative program examined in this study had a significant percentage of teachers pursuing alternative certification who were not entering the CTE field. Future research exploring teachers in all content areas is of need to get a more comprehensive view of how all individuals in an alternative program perceive they are being prepared.

Delimitations also existed for this study. The delimitations, factors known to the researcher but are not a factor that is necessarily controlled by the researcher (Theofanidis & Fountouki, 2019). The first delimitation is the sample size. For this study the sample size involved only three participants. Even though I requested participation from five people, only three were interested in participating and met the criteria of the study. This small size may limit the ability to generalize themes from participant perceptions to a larger population, since it is possible that saturation—or a sufficient number of participants to ensure that no new themes or patterns would be generated—was not obtained (Hayashi et al., 2019). A larger sample would allow for broader, more generalizable insights into participant experiences.

The second delimitation is that the data that was gathered relied heavily on participants past reflections on their experiences. This approach could create biases because their responses may have been influenced by negative memories of the program. It is also worth noting that the inclusion criteria required that teachers be new (i.e., in the first 3 years of their career) and have completed the alternative program in the last 2 years. This timeframe could have resulted in some information deficits if participants could not remember all the details of their experience. Additionally, each participant had some amount of previous experience as a teacher before joining the program. This experience and their advanced degrees may have influenced their perceptions of the content and training provided by the program. Teachers enrolled in their first year in this program or a different program could have produced different data and findings.

Conclusion

The emergent themes of this study revealed that while the alternative certification program provided some beneficial components related to support systems and lesson planning techniques, significant opportunities for improvement exist in explanations and demonstrations of practical application, alignment with CTE-specific content areas and continued professional development and support. Addressing these deficits could enhance future program effectiveness and future teachers' feeling of preparedness, especially for career-switching educators transitioning into teaching and certifying through alternative certification programs.

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APPENDIX A

EMAIL TO PARTICIPANTS

Dear (Enter Prospective Participant's Name),

I hope this message finds you well. This email is to invite you to be a participant in my research study for my dissertation. A little about me, my name is Quinesha Lewis. I am a healthcare science teacher at South Gwinnett High School, a Ph.D. student in the Workforce Education and Instructional Technology program at the University of Georgia and a former alternative teacher preparation program participant.

My doctoral dissertation focuses on the perceptions of career and technical education teachers in alternative preparation programs. Through this research, I hope to gain more insight into how participants of alternative programs discussed how they were prepared for the classroom based on classroom management, transfer of knowledge and skills and the program's overall quality. You were chosen to be invited to participate in this study because you meet the following criteria: you are a new teacher in your first three years of teaching, you are becoming certified as a career and technical education teacher, you are within three months of completing the alternative teacher preparation program OR have completed the program in the last two years.

The research will involve you (the participant) to go through a series of interviews with me (the researcher) and answer questions from an interview guide that will be sent to you prior to the interview. The plan is to conduct two interviews that would be no longer than 60 minutes each with the possibility of a third interview with follow-up and

clarification questions. The ask is that you are available to be interviewed at least two times and that the interviews be in-person. Interviews may be scheduled for Zoom if there are extreme time or geographical constraints. I am committed to adhering to all ethical standards and ensuring that the research process is as unobtrusive and respectful as possible. Furthermore, I am happy to share the findings of the study with you, which I hope will be of mutual benefit.

A copy of the interview guide has been attached to this email for your prior perusal. There is no need to answer any of these questions beforehand, they are simply just to give you an idea of the types of questions you will be asked. However, I will need you to complete the Demographic Questionnaire for Quinesha Lewis' Dissertation to provide the researcher about your career background.

I would be grateful if we could arrange a meeting, if needed, to discuss this potential collaboration further and address any questions or concerns you might have. I am flexible with timing and can accommodate your schedule to ensure a convenient discussion.

Thank you for considering my request. I look forward to the possibility of working together. Furthermore, please see the attached consent form with a more detailed description of what the study entails. Participation in this study is voluntary if at any time you feel you will not be able to participate further, please let the researcher know. It is the researcher's hope to interview between three and five participants. If you know of anyone that meet the above criteria, please let the researcher know. Please let me know if you have any questions prior to agreeing to become a participant.

Best regards,

Quinesha Lewis

WEIT PhD Student

The University of Georgia

APPENDIX B

DEMOGRAPHIC QUESTIONNAIRE

1. First and Last Name
2. What is your highest level of education?
3. What was your degree(s) in?
4. Where do you currently work?
5. What position do you hold?
6. How long have you worked in this position?
7. How long have you been a teacher, if different from the above answers?
8. Describe your career path up until you became a teacher.
9. What motivated you to switch careers to teaching?
10. Tell me about the content area you teach.

APPENDIX C

CONSENT FORM

UNIVERSITY OF GEORGIA

CONSENT FORM

PERCEPTIONS OF CAREER AND TECHNICAL EDUCATION CAREER SWITCHERS IN ALTERNATIVE TEACHER EDUCATION PROGRAMS

Researcher's Statement

I am/We are asking you to take part in a research study. Before you decide to participate in this study, it is important that you understand why the research is being done and what it will involve. This form is designed to give you the information about the study so you can decide whether to be in the study or not. Please take the time to read the following information carefully. Please ask the researcher if there is anything that is not clear or if you need more information. When all your questions have been answered, you can decide if you want to be in the study or not. This process is called "informed consent." A copy of this form will be given to you.

Principal Investigator: *Quinesha Lewis*

Workforce Education and Instructional Technology

Email: ql03738@uga.edu Phone: 423-504-4321

Purpose of the Study

The purpose of this study is to explore the perception career changers have when becoming career and technical education teachers licensed through an alternative

certification program. The study aims to answer questions regarding how the alternative program prepared individuals to manage the classroom, instruct students based on transfer of knowledge and the program's overall quality from the participants perspective. You are being asked to participate because you may fit the following criteria:

- You are a new teacher meaning you are in your first to third year teaching.
- You are being or have been certified as a career and technical education teacher.
- You are within the last three months of completing the alternative teacher preparation program or have completed the program within the two years.

Study Procedures

If you agree to participate, you will be asked to be interviewed two times for at least an hour each. The ask is that the interviews be conducted in person with the researcher voice recording. The option to conduct the interview virtually is open for those with distance or time constraint issues. The virtual interviews will also be recorded. For clarification purposes individuals may be asked to participate in a third interview that should last between 30 minutes and an hour. The first interview will entail questions regarding background information on the participant’s past career and schooling. There will also be questions about how the alternative program assisted in preparing to manage a classroom and transfer knowledge and skills. The second interview will entail questions regarding more in-depth discussion on the alternative program, resources and extra support they provided. The second interview will also include a discussion clarifying any answers from interview number one. If it necessitates, participants will be asked to be in a third interview for clarification from the first two interviews. Each interview will last no more than an hour and the third interview could last no more than thirty minutes.

Risks and discomforts

I/We do not anticipate any risks from participating in this research.

Benefits

There are no direct benefits to the participant. However, there are potential benefits to future participants of alternative certification programs who are becoming career and technical education teachers. Those benefits include a more comprehensive program that provides more tools and resources regarding classroom management, instruction and transfer of knowledge. It is also the hope that the overall program quality is improved.

Alternatives

This research does not involve experimental treatment, therapy or intervention and thus has no need for any non-experimental alternative.

Incentives for participation

The participant will not receive any incentive, monetary or non-monetary, for participating in this study.

Audio/Video Recording

Interviews will be video and/or audio recorded and used by the researcher to complete their thematic analysis. The recordings will be transcribed by the researcher and will be needed to ensure they are capturing the true meaning to the answers the participants provided during the interview. The recordings of the interviews will be kept confidential on a password protected device and will be destroyed one year after the date of recording. The recordings for this research will only be used for the researcher to complete their study and for no other purposes (such as publications or promotional purposes). *Agreeing to the recording will allow the researcher to focus on the participant during the interview*

and clarify some but not all the questions the researcher may have while transcribing the material. If you chose not to be video/audio recorded, please let the researcher know. Your participation in this study is voluntary. At any time, if you would like to opt out, please let the researcher know.

Please provide initials below if you agree to have this *interview audio and/or video* recorded or not. You may still participate in this study even if you are not willing to have the interview recorded.

_____I do not want to have this interview recorded.

_____I am willing to have this interview recorded.

_____I am willing to have the video audio recorded but not video recorded.

Privacy/Confidentiality

In this study, the researcher will collect information that may indirectly identify the participant using codes or pseudonyms. This means that while the researcher will record data about the participant, the participant's personal identifiers (such as name or email address) will be replaced with a unique code or pseudonym to protect their identity.

The researcher will identify the participants by pseudonym throughout the transcription of the interview. The participant will never be identified by name. The researcher and the researchers committee will be the only individuals with access to the participants personal identifiers. The participants personal information (name and email) will be kept separate from the transcribed data. The personal information will be stored separately from the transcribed data and will be stored on an encrypted database such as Cloud storage. Physical data such as the participants signed consent form will be kept in a

locked cabinet. The data collected will be used solely for the purposes of this study and will not be shared with others without the participant's explicit consent.

The project's research records may be reviewed by the Institutional Review Board (IRB) as well as departments at the University of Georgia responsible for regulatory and research oversight.

The researcher will not release identifiable results of the study to anyone other than individuals working on the project without the participants written consent unless required by law.

Taking part is voluntary.

Your involvement in the study is voluntary, and you may choose not to participate or to stop at any time without penalty or loss of benefits to which you are otherwise entitled. If you decide to withdraw from the study, the information that can be identified as yours will be kept as part of the study and may continue to be analyzed, unless you make a written request to remove, return, or destroy the information.

If you have questions

The main researcher conducting this study is Quinesha Lewis, a *graduate student* at the University of Georgia. Please ask any questions you have now. If you have questions later, you may contact *Quinesha Lewis* at *ql03738@uga.edu* or at *423-504-4321*. *Quinesha is being supported in her research by major advisor Dr. John Mativo who may also answer questions at jmativo@uga.edu or at706-542-1682.* If you have any questions or concerns regarding your rights as a research participant in this study, you may contact the Institutional Review Board (IRB) Chairperson at 706.542.3199 or irb@uga.edu.

Research Subject's Consent to Participate in Research:

To voluntarily agree to take part in this study, you must sign on the line below. Your signature below indicates that you have read or had read to you this entire consent form and have had all of your questions answered.

_____	_____	_____
Name of Researcher	Signature	Date

_____	_____	_____
Name of Participant	Signature	Date

Please sign both copies, keep one and return one to the researcher.

APPENDIX D

INTERVIEW GUIDE

Research Questions	Interview Questions
How effective do individuals feel overall after completing the alternative preparation program?	*Factors Determining Alt Program* Describe your schooling up until the alternative teaching program. Describe your previous career. (Roles/duties, time commitment, work/life balance) What motivated the switch from that career to teaching? Why did you choose this alternative program? What program requirements were the best fit for you and why? If you could change programs, would you? Why or why not? *Quality of Program* Tell me about your experience in the alternative program. Explain what you think the alternative program prepared you for the most. Describe methods/strategies used by the alternative program to improve your perceived teaching effectiveness. How would you describe your overall experience in the alternative preparation program?

	In what ways do you feel the program prepared you for your current role or responsibilities? How confident do you feel in applying the skills you learned from the program in real-life scenarios? What specific aspects of the program do you feel were most beneficial to your personal or professional growth? Are there any areas where you feel the program could have prepared you better? If so, please elaborate. How has your perspective on your field changed as a result of completing this program? Do you feel more equipped to handle challenges in your field after completing the program? Why or why not? What were some of the biggest changes you noticed in yourself after finishing the program? Can you share a specific moment during or after the program where you felt the training made a difference? How would you compare your confidence in this field before and after the program? What were some challenges you faced during the program, and how did they impact your learning experience? In what ways did the program meet or not meet your expectations for professional preparation?

	Do you feel the program offered enough hands-on or practical experience? Why or why not? Looking back, what do you think is the most valuable thing you gained from the program? Would you recommend this program to others seeking similar training, and why?
How prepared do individuals feel to manage the classroom after completing the alternative preparation program?	*Classroom Disruptions* How do you feel they prepared you to handle classroom disruptions? How prepared were you to manage different student behaviors? Explain the strategies given to you to implement in the classroom. If they did not provide strategies, what strategies would you have liked for them to provide and why? How would you describe your overall sense of preparedness to manage a classroom after completing the program? In what ways do you feel the program equipped you to handle classroom management challenges? How confident do you feel in implementing effective classroom management strategies you learned in the program?

	Can you describe a specific technique or approach from the program that you have used in the classroom? How effective was it? What aspects of classroom management do you feel most prepared for, and why? Are there any areas of classroom management where you feel less confident? If so, which ones and why? How did the program help you address student behavior issues in a real classroom setting? How well do you feel the program addressed cultural responsiveness in classroom management? Can you share an experience where your training helped you handle a challenging classroom situation? How well-prepared do you feel in creating and maintaining a positive classroom environment? In what ways did the program help you develop strategies for engaging students with diverse learning needs? How equipped do you feel to manage unexpected or disruptive behaviors in the classroom? To what extent did the program provide hands-on opportunities to practice classroom management skills? How effective were the instructors or mentors in preparing you for real-life classroom management situations?

	Looking back, is there anything you wish the program had focused on more in terms of classroom management skills?
How prepared do individuals feel to transfer professional knowledge to content instruction after completing the alternative preparation program?	*Transfer of Knowledge* Tell me about the content area in which you teach. Tell me how prepared you felt you were to lesson plan after completing the alternative program. Tell me how prepared you felt to transfer your career knowledge from the field to the classroom. Describe the preparation you received from the alternative program regarding lesson planning. Describe the different instructional models you use in your classroom (provided by the alt program). Describe how prepared you felt to use different teaching strategies. Which teaching strategies do you feel most comfortable to use in the classroom, why? Which teaching strategies do you feel you are least comfortable using in the classroom? Why? Describe methods/strategies used by the alternative program to improve your teaching confidence.

	How would you describe your overall readiness to apply your professional knowledge to content instruction after completing the program? In what ways did the program help you integrate your prior professional experience into teaching content? How confident do you feel in adapting your knowledge to make lessons more relevant and practical for students? Can you share an example where you successfully used your professional expertise to teach a particular topic? How well-prepared do you feel to design lessons that bridge theoretical concepts with real-world applications? What instructional strategies from the program do you find most useful for translating your knowledge into teachable content? Do you feel the program provided enough support to help you connect your professional experience with curriculum standards? Why or why not? How equipped do you feel to adjust your knowledge to meet students' varying levels of understanding? Are there any areas of content instruction where you feel less confident in applying your professional knowledge? If so, which ones and why?

	To what extent did the program provide practice opportunities to apply professional knowledge in a teaching setting? How has the program prepared you to use real-world examples and scenarios in your lessons? How well-prepared do you feel to explain complex concepts from your field in ways that are accessible to students? How effective were the program's resources or instructors in guiding you to integrate professional knowledge into teaching? What challenges have you faced when trying to apply your knowledge to content instruction, and how did the program help address them? Looking back, is there anything you wish the program had covered more in helping you transfer your professional expertise to the classroom?

APPENDIX E

INTERVIEW 1A AND 1B SUMMARY

Interview 1A Summary

This is a summary of our first interview. I made bullet points to make it easier to read. If there is anything on here that I misinterpreted or that you would like to clarify/change, please let me know. I had a few follow-up questions that you can feel free to answer in an email or wait till we conduct our second interview.

- Overall, you thought the program was a success with the proper support from various people within your circle (from the alternative program, your school and even your family)
- You felt that the information provided to you was aligned to help career switchers, especially if they did not have any prior experience with teaching. However, because you were CTE there were not many industry specific teaching experiences.
- The program was not necessarily rigorous but there was a lot of work in terms of assignments and reading. The assignments that you could remember were called artifacts and you had to complete 6 a semester. Even though the assignments were helpful, “putting it into practice is better.”
- You already have a master’s degree, so you felt no need to join another master’s program to get your teaching certificate.

- You mentor (provided by alternative program but was an individual inside your school) was the most helpful. Helping you with strategies such as quick checks, utilizing differentiation, formative assessments and helping you with engagement of the students with the material.
- Other support that you received was in the form of:
    - Supervisor- provided by the county.
    - Alternative program AP- Assistant Principal in you building.
    - Table mates- individuals going through the program at the same time but were in various content areas.
    - Family- huge help in understanding that you need time to complete assignments.
    - Team teacher- helpful because they already knew the content and could help with content specific issues. Were also there during the first year of teaching in which you were not in the program.
- Program provided many resources that could help with various aspects of teaching:
    - Books for classroom management (Follow-up question, what books? Were they helpful to you?)
    - Took a couple of courses that helped with diverse learners. The main one being the Exceptional Learning course.
- You go to observe other teachers which helped you to see how they handled classroom management and transitions from one part of the lesson to the next which was very helpful.

    - As far as classroom management from your perspective, you did not need it as much since you taught the previous year and had to work on the fly to manage your classroom.
    - However, strategies such as small group instruction and timing of lessons were being modeled in the observed classes and that was extremely helpful for you to see.
- Follow up questions from my end:
    - The name of the individuals that you could recommend for the study.
    - Name of the resources given (books, websites, etc.)
    - The manual that was given to you. (I can come pick this up and it will be returned to you in the same condition in which I borrowed it!)
    - Please see the Doodle here for scheduling the next interview.

Interview 1B Summary

This summary is following up with the information provided during your interviews. It is especially focusing on Interview 1B and the information that was given. Please review the summary and let me know if you have any questions.

- The first part of the interview started with follow-up questions from the first interview. The first questions were regarding the transfer of content knowledge and how the alternative program assisted you with transferring your professional knowledge to content knowledge.
    - You stated that you pretty much had this process down because you had already taught for a year.

    - The most you feel like the program helped you with transfer of knowledge was creating a mini lesson and timing the parts of the lesson appropriately.
- You mentioned the gradual release model and that it helped to pace out the lesson. The program did explain and model the gradual release model. There were also instances where you were allowed to practice gradual release with your classes.
- The lesson plans that you had to create were helpful with the gradual release model, but they were based on templates provided by the program and at times it was hard to "fit" your content into the specific categories of the template.
- The program also spent a great deal of time explaining that the formative and summative assessment data was important and how to use it to tailor instruction.
- I also asked if you were able to give feedback after the program was completed. You stated there was a debrief meeting with your whole support team (minus your family) but there was not opportunity to give specific feedback about what you felt could be improved.
- We also talked briefly about the time commitment for the program. You all met once a month, either on a weekday for a few hours or on Saturday for 6-8 hours.
    - There were also additional classes that you had to take.
- The program did help a lot with aligning instruction with the standards.
- You suggested that it might be helpful to have continued mentorship after the completion of the program to help with any lingering issues outside of having to complete assignments.
- Additional professional development would have also been helpful.

APPENDIX F

INTERVIEW 2A AND 2B SUMMARY

Interview 2A Summary

This is a summary of our first interview. I made bullet points to make it easier to read. If there is anything on here that I misinterpreted or that you would like to clarify/change, please let me know. I had a few follow-up questions that you can feel free to answer in an email or wait till we conduct our second interview.

- Your overall experience with the alternative program was that it was difficult, they did not provide many examples that you could use.
    - You felt that it was geared towards special education or core classes with no bridge to help CTE teachers.
- You felt that some of the assignments were not helpful and almost felt like busy work. Examples of the assignments include the LUA, VIP, SLEE. You explained what these were, but the explanation is not as important as the general statement that you made.
- You took several additional classes which included Adolescent Development, Exceptional Youth and Foundations of Reading.
    - These classes were helpful but should have not been taken at the same time as the program. Should have been offered separately because there was a lot of work, and the assignment due dates overlapped. This made it

difficult and overwhelming to complete the assignments to the best of your ability.

- The program did provide resources like books for differentiation and teaching adolescents. The books would be helpful in a different setting but while going through the program you were only reading what you needed to, to get assignments done.
- You stated that a better use of time would been the program changing how much instruction was given for each assignment (you wanted more instruction vs. what you got).
    - You also would recommend that an example video be given for each subject area, so the participants know what they are expected to create.
        - It would be helpful if examples from previous years was used (especially for CTE teachers).
- Classroom management was not stressed throughout the program. You felt that you would have benefitted from more hands on training in this area. Specifically training on how to handle difficult students.
    - The class on adolescent growth and development talked about the stages that teens go through and are going through as they age in their teen years, but it did not help when it came to managing behaviors.
- Strategies that the program mentioned you could use:
    - Differentiation
    - Turn and talk (under the premise that they learn best from each other)

        - You struggled with this mainly as it pertained to regaining the focus of the students after and keeping them on task during
        - You felt turn and talk strategies could be more helpful for a different grade level and different class size than the classes you had.
        - You did have someone assist you with techniques you could use based off the feedback that you needed more collaboration amongst your students.

I did not have any follow up questions for this interview. We did need to complete some of the questions from the interview guide as we ran out of time during our first interview.

Interview 2B Summary

This summary is following up with the information provided during your interviews. It is especially focusing on Interview 2B and the information that was given. Please review the summary and let me know if you have any questions. We started this interview completing some of the questions from the interview guide that I wanted to ask in the first interview, but we ran out of time.

- We ended the first interview talking about strategies and techniques that were provided to you to assist with your instruction. So, we picked back up with that and you discussed the need to have more practice doing the different instructional strategies or skills.
    - You felt you needed more time to visit other teachers in a more organic setting so that you can see these strategies happening naturally and not

with the teacher planning every little step because they know visitors are in the room.

- You also spoke about limiting the number of assignments that were given in order for you to fully focus on each individual assignment.
- You felt the program did not help with transferring your knowledge to the students because you had already had more than one year of teaching under your belt (one year at your current school and another year in a different state).
- Lastly you said a great deal of your success was due to collaboration. You stated that you had a mentor that you met with on a weekly basis who made sure you understood the assignments and assisted you with questions. You had a supervisor who video conferenced with you and observed you and then gave you feedback. You also spoke of an Administrator who was an assistant principal who you could lean on if needed but they were not the main person you sought information from.

APPENDIX G

INTERVIEW 3A AND 3B SUMMARY

Interview 3A Summary

This is a summary of our first interview. I made bullet points to make it easier to read. If there is anything on here that I misinterpreted or that you would like to clarify/change, please let me know.

- You stated that you did not have a background in education but you did have a master's degree so that was the reason why you chose to go through the alternative certification program instead of getting another master's degree.
- You wanted to go through this program to learn how to lesson plan, get help with classroom management and other things you did not have a background in.
- You stated that it was hard to get into this program because you were CTE and that the focus for the program was SPED and core classes at the time that you entered. You did receive a provisional license instead of a permit which is often common for healthcare CTE teachers.
- You said it was a strenuous program in workload with work you had to do online in addition to the in-person meetings and readings.
- You had a mentor who you met with once a week as well as an administrator and supervisor who would both come and observe you teach.

- In addition to the meetings and observations, you had to record your lessons and write up the assignments based on the recordings and questions you had to answer.
- The assignments, specifically the lesson planning was important, and you learned how to write one effectively, but you do not consistently write lesson plans in the manner in which the program showed you.
- Throughout the lesson plan writing the program emphasized the importance of gradual release and how important it is to use this strategy while lesson planning. You stated that it is one strategy that you use consistently and often.
- You felt like the classroom management strategies that were given by the program helped you a little with the grade level that you were teaching. The specific instance you could remember was redirecting the students when they were off task.
- Other than that, you feel like learning classroom management was personal to the teacher and what they were teaching and who they were teaching. However, there were books given on the topic that you could read at your own pace.
- Even though not a lot of support was given in helping to manage difficult students, the program did focus on helping struggling students, especially multiple language learners.
    - You were given feedback as well as differentiation strategies to help. The support came after you inquired about ways to help your students when you only had Google Translate as a resource.

Interview 3B Summary

We started where we left off discussing classroom management.

- It was good for you to observe other teachers to see what their classroom management styles were like and how they were engaging the students.
    - A downside to the observations was that you had to set them up on your own which was one more tedious task to complete.
- You mentor was a critical point of support for you. She assisted tremendously in helping you find observation sites. She also gave you a ton of examples that you could use to help you complete assignments.
- The support is needed! You had the mento, the program supervisor, the program administrator and your table mates (who were the same every meeting but were a mix of subject areas. The table mates helped to work out the kinks and understand the directions for the assignments.
    - One thing you hope is that they group teachers with like content so that the similar backgrounds can help clear up confusion about the assignments.
    - You felt that you got general support when it came to your content area and that you had better luck asking your superiors at your local school if you had any questions.
    -
- One thing in particular that you struggle with was turning in the assignments first semester and not receiving adequate feedback that would help you learn from your mistakes to complete the “certifying” assignments in the second semester.

    - You felt that from talking to other people, everyone was not receiving consistent feedback and that the program could benefit from making sure all “graders” were being consistent.
- As far as content knowledge goes, the program helped a little in making sure that your professional knowledge could be used to help the diverse learners of your classroom.
- You were provided additional support after you completed the program, but it was initiated by your mentor. The leaders of the alternative program did not provide any additional support to help with the transition.