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Doctor of Education in Organizational Leadership

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Effective Career and Technical Education Administration: Assumed or Developed?

A dissertation submitted in partial satisfaction of the requirements for the degree of Doctor of Education in Organizational Leadership

by

Adrian L. Eaglin

April 2023

Dedication

I dedicate this to my parents, who instilled in me the importance of education, to my teachers, who inspired me to learn for learning's sake, and to my wife and children, who serve as an impetus for my continual personal and professional growth in ways I may never be able to effectively articulate.

Acknowledgments

I would like to acknowledge Abilene Christian University (ACU), the place where I started and ended my postsecondary educational journey. It is because of the life lessons and lifelong relationships garnered from my time at ACU that I even attempted this massive undertaking.

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Finally, I would like to acknowledge my campus and district leadership for seeing potential in me that I did not see in myself, for fostering that vision until it became my own, and for guiding me and supporting me in bringing that vision to fruition.

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Abstract

The recognition of the potentially transformative effects of having a quality career and technical education program has grown exponentially over the past two decades in the United States. As such, it is paramount that those serving as administrators of this co-curricular content area be prepared, trained, and developed to effectively lead these important programs at the campus level. This qualitative action research is a case study, using two types of interviews of 38 specific personnel within the career and technical education departments and leadership in that district to determine whether effective career and technical education administration is assumed or developed in that school district. The study found that, in the district studied, it was the prevailing sentiment by those vested in the career and technical education program that effective administration was assumed, not developed. Key conclusions reached in this study included that the role of program administrator could be potentially impactful to the success of the career and technical education program, and, by extension, to the success of the program's students within this school district. As such, this study also concluded that it is incumbent upon this school district to be more intentional about the preparation, training, and development of those that are positioned to lead this department at the campus level across the school district. Finally, the study concluded that, while the district studied did possess quality administrators for its career and technical education program, this was not the byproduct of the recruiting, training, or development systems and processes the district enacted to prepare and support those placed in this critical role.

Keywords: career and technical education (CTE), program administrator

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Chapter 1: Introduction

For many years, high schools may have seemed to push a binary choice regarding setting their students up for success in their future: college or the military (Bragg & Taylor, 2014; Carnevale et al., 2013; Mobley et al., 2017; Saeger, 2017). This binary choice has been perpetuated by the educational system, specifically, in Title I schools—public, K-12 campuses with large concentrations of low-income students—as federal and state funding was provided to support the campus mission of ensuring student success, which was often measured by ensuring the graduating student chose one of these two previously outlined paths (Bragg & Taylor, 2014; Burris & Welner, 2005; Cantwell & Milem, 2010; Welton & Martinez, 2014). This pressure to choose one of the two desired paths may lead some students, who might not envision college or the military as their best available next steps, to believe that the world in which they currently live is not one in which they are prepared to compete, absent taking advantage of one of these two options (Bragg & Taylor, 2014; Burris & Welner, 2005; Carter & Welner, 2013; Dougherty & Lombardi, 2016). This belief all but relegates these students toward a patently unsuccessful path by the standards of their alma mater.

While this pressure is not indicative of the actual options available to students, this false narrative may play a role in exacerbating the opportunity and achievement gap (Burris & Welner, 2005; Carter & Welner, 2013; Castro, 2013; Ladson-Billings, 2013), especially for students from Title I schools, where these gaps are often the most prevalent (Burris & Welner, 2005; Golann, 2015; Ladson-Billings, 2013). The terms *opportunity gap* and *achievement gap* refer to inputs and outputs, respectively, that lead to a lack of equity in the distribution of educational opportunities and educational results (Jackson et al., 2015; Golann, 2015).

Additionally, these students may simply not be made aware of the cornucopia of options available to them (Carter & Welner, 2013; Castro, 2013). There are myriad means of ensuring student success after high school graduation absent this binary choice, but this may simply not be the message many Title I students receive, provided they wholeheartedly subscribe to the belief that their postsecondary options are inherently limited. Regardless of how purposefully public schools have or have not advanced this narrative, many careers are available to high school graduates upon graduation, but they may entail prerequisites, such as prior experience, certification(s), evidence of mastery of specific skills, and/or knowledge of the field of endeavor (Castro, 2013; Dougherty & Lombardi, 2016; Gottfried & Plasman, 2018; Malin et al., 2017; Welton & Martinez, 2014).

To provide a means of closing the opportunity gap and achievement gap, informing the misinformed and to better prepare the otherwise unprepared, many Title I public school districts in the United States have moved to improve their career preparatory programs via career and technical education (CTE) programs (Bragg, 2017; Hess, 2016; Imperatore & Hyslop, 2017; Jackson et al., 2015; Kitchel, 2015; Ladson-Billings, 2013; Malin et al., 2017; McGuinn, 2016; Mobley et al., 2017).

More commonly known as vocational education, these courses were, some time ago, deemed as co-curricular, part of the educational process and on equal footing with other academic courses (Hemelt et al., 2019; Imperatore & Hyslop, 2017; Luaces et al., 2018; Saeger, 2017). Since 2002, due in part to federal mandates issued by the No Child Left Behind Act (NCLB) of 2001, a drastically advancing focus on standards-based testing, and a dramatic push toward higher education, especially in Title I schools (Golann, 2015; Jackson et al., 2015;

Kitchel, 2015), vocational training courses were relegated to the realm of elective, nonessential courses (Fletcher et al., 2018; Luaces et al., 2018; Saeger, 2017).

Consequently, this critical cog in the educational process was all but eradicated (Fletcher et al., 2018; Imperatore & Hyslop, 2017; Luaces et al., 2018; Malin, et al., 2017; Saeger, 2017). The result was almost an entire generation of students with seemingly severely limited postgraduate options and little preparation for the world waiting for them after high school graduation. If college or a career in the military were not viable options for these students, they were left to attempt to secure menial employment and strive to build a future for themselves through that route (Imperatore & Hyslop, 2017; Kitchel, 2015; Ladson-Billings, 2013; Luaces et al., 2018; Malin et al., 2017; Stone, 2013).

The narrative of "college for all" has lost its fervor with many public high schools in recent years (Ahearn et al., 2016; Carey, 2011), as it has been established that college may not necessarily be the best option for all high school graduates (Ahearn et al., 2016; Goyette, 2008; Hess, 2016; Rosenbaum, 2001; Silva & Snellman, 2018). In the past decade, there has been a growth in the emphasis on CTE programming in public schools (Carey, 2011; Hess, 2016); especially in Title I schools, as many of these students may come from homes where skilled laborer careers are seen as viable, even optimal, paths for students (Bragg, 2014; Brodersen et al., 2016; Conneely & Hyslop, 2018; Dougherty & Lombardi, 2016). In these high schools, and often in the districts consisting of these schools, CTE programming is so emphasized at the campus- and district- level that they have built CTE programming centers, where students that have chosen CTE coursework as a chosen track and/or career path can gain access to advanced training, even earning professional certifications upon and/or prior to their high school graduation (Seifert, 2019; D. A. Smith, 2017; Stubbs & Stubbs, 2017; Zinth, 2013).

With that stated, all high schools teach several math courses, but that does not necessarily equate to all schools teaching math well. There are standardized tests, high-stakes tests, common assessments, and the like, serving as accountability measures and stopgaps for this content area in public high schools across the nation (Castellano, Richardson, et al., 2017; Stubbs & Stubbs, 2017).

CTE programming has no such accountability measures. In Texas, CTE programming is regulated by the Texas Education Agency (TEA), and it is held accountable, per the provisions listed in the Carl D. Perkins Career and Technical Education Improvement Act of 2006, but this content area does not have any high-stakes tests associated with it. Student mastery of content taught in CTE programming is not linked to CTE teacher accountability ratings, performance, or the like. Absent such an intricate amalgam of imbedded accountability systems and stopgaps, it is difficult to determine if provision of programming options is a sufficient course of action. In that vein, perhaps what should also be studied is how well these programs are run (Castellano, Richardson, et al., 2017; Gottfried & Plasman, 2018; Hemelt et al., 2019; Luaces et al., 2018; Stubbs & Stubbs, 2017).

Background of the Problem

The current professional context of this study is Winville Independent School District (WISD), where I serve as an assistant principal (AP) at Champion High School (CHS), one of the district's four comprehensive high school campuses. (Both the name of the school district and the high school are pseudonyms.) Part of my purview as an AP is to be the administrator tasked with overseeing the CTE Department. This district serves the needs of over 35,000 K-12 students in a city located in North Texas. In WISD the importance of CTE courses has been vigorously advanced to its students, via teachers, administrators and, perhaps most pervasively,

guidance counselors. It is an overarching goal of WISD that every high school student is enrolled in at least one CTE course during the four years they are enrolled there.

Additionally, when course selection time approaches, whereby students, with input and support from their academic counselors and their parents, select their courses for the upcoming school year, scaffolding of previously taken CTE courses and/or selection of new courses is highly encouraged. Each WISD high school has a CTE counselor, who is tasked with ensuring students may visit as needed to learn more about CTE programming at the campus level, as well as course programming offered at the district's Career and Technical Education Center (CTEC), which is a campus whose sole task is to provide advanced-level CTE coursework for all interested students. WISD understands the critical nature of CTE programming, yet there remains a need for utilizing its programming to a greater extent in closing the achievement gap and opportunity gap than in simply offering a broad swath of coursework. Filling this need is a function of leadership, specifically at the campus level, and therein lies the importance of the CTE administrator.

CTE programs are integral to educating the whole child and they may play an invaluable role in preparing students for college and career after high school graduation (Kitchel, 2015; Luaces et al., 2018; McGuinn, 2016; Mobley et al., 2017). Furthermore, ineffective CTE programming is connected to higher dropout rates and general unpreparedness for college and/or career after high school. (Bragg, 2017; Dougherty, 2018; Hemelt et al., 2019; Saeger, 2017).

There is ample evidence that there is a rise in the availability of CTE programs, but availability of CTE programming and its effectiveness are mutually exclusive (Gottfried & Plasman, 2018; Hemelt et al., 2019; Kitchel, 2015; Luaces et al., 2018), but there is limited extant literature examining the equity between availability and effectiveness (Ahearn et al., 2016;

Hess, 2016; Silva & Snellman, 2018). As such, we on the front lines of high school education administration are relegated to seeing the vicissitudes of this movement without having ample scholarly evidence of what is being witnessed. Additionally, there is a lack of extant scholarly theories delineating all the ways successful CTE programs are developed and administered, specifically in Title I schools (Hemelt et al., 2019; Kitchel, 2015).

CTE programs offer a great deal to students in U.S. public schools (McGuinn, 2016; Mobley et al., 2017; Saeger, 2017), and adding to the research of its perceived viability will be value added in WISD, where CTE programming has experienced exponential growth. While this programming is experiencing a veritable boom, this research may serve to spark critical questions, forge critical conversations, and unearth possible solutions to the issue at hand in the WISD, which is how to effectively administer CTE programs.

Statement of the Problem

The problem in my context is that in WISD, like many school districts, effective CTE program administration may be assumed, not developed (Bragg, 2017; Brodersen et al., 2016; Dougherty, 2018; Haag, 2015; Hemelt et al., 2019; Kitchel, 2015). This assumption may mask a lack of understanding about what effective CTE programming looks like, how it is developed, and how it can be best implemented and maintained (Bragg. 2017; Haag, 2015; Hemelt et al., 2019; Saeger, 2017).

Additionally, and perhaps more specifically, this assumption may be used to legitimize my role as the assistant principal overseeing CTE programming at my Title I high school, even though I had no CTE background whatsoever prior to assuming this role. Scholars posit that this is not an uncommon phenomenon in U.S. public schools (Haag, 2015; Jackson & Hasak, 2014; Shumer & Digby, 2012; Stone, 2013). Ultimately, scholars provide evidence that the root of this

problem is a leadership issue (Haag, 2015; Mobley et al., 2017), one that is directly linked to the educational administration of CTE programming (Jackson & Hasak, 2014; Saeger, 2017; Shumer & Digby, 2012; Stone, 2013).

Working from the understanding that CTE programming has potentially transformational effects on its students (Gottfried & Plasman, 2018; Haag, 2015; Mobley et al., 2017), the gap in knowledge or area that must be given more intentional study is found in the development of the CTE program administrators (Estes & McCain, 2019; Ferguson, 2018; Jackson & Hasak, 2014; Shumer & Digby, 2012; Zirkle & Jeffrey, 2017). Exploring the development, or lack thereof, of CTE program leadership may bolster scholarly input and provide evidence regarding ways that administrative leadership positively and/or negatively impacts CTE programming, and, by extension, how this leadership positively and/or negatively impacts the end goal of closing the opportunity gap and achievement gap for the students served by these programs (Bragg, 2017; Brodersen et al., 2016; Estes & McCain, 2019; Ferguson, 2018).

Purpose of the Study

The purpose of this qualitative case study was to examine the quality and effectiveness of an existing CTE program administration in a specific Title I public school district in North Texas from the perspectives of the current CTE personnel and leadership of this district. A survey sought to determine existing ideas describing effective, high quality CTE program administration, specifically, ways to improve upon an existing CTE program via program administration. Focused on the overarching goal of improving the administration of CTE programming in a specific context and population, I purposely chose to unearth existing perspectives and identify inherent strengths and deficiencies in the current CTE program administration in the district. Additionally, I expect this study to provide suggestions that may

lead to improvements in the district's CTE PA going forward. These suggestions may lay the groundwork for next steps, providing a blueprint for enacting positive changes for the purpose of advancing the CTE program. In doing so, more intentionality may be utilized toward closing the opportunity gap and achievement gap for the students served by CTE programming.

Significance of the Study

This study is important in that it sought to address the gap in the knowledge regarding effective CTE program administration. In doing so, this study stands to be utilized to improve the condition of CTE programming. It also serves to equip the CTE program administrators of this district to more effectively support the CTE Department, and, consequently, to enhance the experiences of WISD CTE students for years to come.

Research Questions, Research Design, Methodological Approach and Rationale

In this section, I outline the three overarching research questions that this study sought to answer. An explanation of the research design plan is unearthed, along with the methodological approach to this study. Finally, in each step of this study, the rationale behind the choices I made will be briefly discussed.

Research Questions

While there were many questions asked of study participants, the primary focus of this study concentrated on three key areas:

RQ1: What constitutes effective CTE program administration in WISD?

RQ2: What steps are taken by WISD to facilitate the effectiveness of CTE program administrators?

RQ3: Is effective CTE program administration in WISD assumed or developed?

Research Question Rationale

The rationale behind these overarching questions was to determine whether there was a sense of partnership between the CTE PA and the CTE program personnel. Participative leadership is one of the more effective leadership styles, specifically when considering the relationship between teachers and administrators (Passarella, 2018; Saeger, 2017; Shumer & Digby, 2012; Thessin et al., 2018). Teachers and administrators working in concert to meet the needs of students is idyllic, to say the least (Shumer & Digby, 2012; Stevens, 2018; Stubbs & Stubbs, 2017; Zirkle & Jeffrey, 2017), and ascertaining the perception of this ideal in the relationship between the CTE teachers and their designated administrator would be an important piece of information.

It was also necessary to determine if the needs of the CTE students were adequately addressed and supported (Goins, 2016; Luaces et al., 2018; Passarella, 2018; Shumer & Digby, 2012; Stevens, 2018). I sought to make this determination using the underlying questions of RQ1. If the survey respondents believed the students' needs were not supported by CTE PAs, this would speak volumes about the experience of leadership in the program, and it could impact the type of ambassador they might serve as for the CTE program throughout their campus and in the larger school community. My insight regarding student experiences is subjective, so I did not think it was appropriate to give this survey to CTE students.

Underlying questions of RQ1 and RQ2 determined whether the CTE PA and district leadership took intentional action steps to ensure the growth of the CTE program, be it via student participation, course additions, or providing learning outside of the classroom. As growth and development of a program is a function of leadership of the program (Cox et al., 2015; Goins, 2016; Prasad, 2017; Shumer & Digby, 2012), if the CTE PA was perceived as lacking in

this area, it may stand to reason that the growth and/or development of the CTE program would be inhibited.

Underlying questions from the survey that were meant to provide supportive evidence of responses to RQ1, RQ2, and RQ3 sought to garner a greater understanding of the chances students had of securing supplementary CTE learning while enrolled in these courses. This is important because scholars have provided evidence that CTE students that gain access to additional opportunities for professional advancement while in high school CTE courses are more likely to pursue these careers postgraduation, which, in one respect, is evidence of student success in that CTE program (Cox et al., 2015; Dougherty & Lombardi, 2016; Hodes & Kelley, 2017; Malin & Hackmann, 2017; Wai-Ling Packard et al., 2012; Xing et al., 2017).

Finally, survey questions sought to provide support for responses to RQ-3. It was important to not only get a response, but to get evidence throughout the survey of whether effective CTE program administration was a byproduct of the district leadership's intentionality, or a byproduct of coincidence. To that end, if survey respondents replied that they believed effectiveness in this regard was developed, there should be supporting evidence of this sentiment throughout the survey responses.

Research Design

This research was a districtwide case study conducted to shed light on the research problem and initiate reflection from the participants. Additionally, the study provided a platform by which to explore the issue at hand going forward. To that end, the primary function of action research is to facilitate learning through intentional action that may ultimately inform and/or direct next steps within a professional context (Newton & Burgess, 2016; Sagor & Williams, 2016). I chose a districtwide case study because this research design is often incorporated to

facilitate positive changes within educational programs (Campbell, 2013; Efron & Ravid, 2019; Sagor & Williams, 2016).

The research design of this case study, or the plan by which the research questions were answered (Given, 2007; Mertler, 2019), was descriptive. A descriptive study is one that is designed to describe the relationship between multiple variables within a context, without attempting to determine causation (Aggarwal & Ranganathan, 2019). Focused on the *what*, *when*, *where*, and *who* of a given context, as opposed to the *why* of said context, descriptive research sets the stage of a context and/or situation that may be studied without attempting to explain phenomena within the context and/or situation (Aggarwal & Ranganathan, 2019; Given, 2007; Lambert & Lambert, 2012). It is used chiefly to obtain information concerning the conditions of and mitigating circumstances within the problem of practice as well as to accurately describe phenomenon within the problem of practice (Given, 2007; Lambert & Lambert, 2012).

Research Design Rationale

The rationale behind this research design choice was manifold. Primarily, I intended this design to improve the educational program in my context by taking an in-depth look at the context within the problem of practice without amending any aspects of or disrupting the sense of normalcy within the context (Aggarwal & Ranganathan, 2019; Newton & Burgess, 2016).

Additionally, as this study was done in pursuit of an applied doctorate, it was imperative that the research also produced actionable data that could be utilized to develop recommendations in practice. These data are most likely acquired and rendered from descriptive study (Aggarwal & Ranganathan, 2019; Given, 2007; Ivey, 2016).

Finally, the rationale behind this design choice was to ensure the collection of a range of substantive data from a specific setting (Ivey, 2016). The benefits of having considerable actionable data were two-fold: they can be useful in providing a richer, more detailed analysis, and they may serve as verifiable validation of research findings (Ivey, 2016; Lambert & Lambert, 2012).

Methodological Approach

This study had a qualitative approach. The goal of utilizing a qualitative approach was to clearly establish whether this issue at hand was deemed problematic to involved parties within my context, as well as to provide explanations for the underpinnings of the issue at hand. This subjective approach sought to answer how the current status quo in my context came to be, as well as why the status quo had yet to be challenged and/or changed, should the results of the qualitative study provide such evidence (Efron & Ravid, 2019; Lesh & Gleason, 2019; Mertler, 2019). To this end, this study had a brief questionnaire and several interview questions for CTE personnel.

This study utilized two distinct methods for data collection, including a baseline interview for select CTE personnel and in-depth interviews with CTE leadership at the campusand district-level. The baseline interview consisted of 17 open-ended questions (Appendix E), administered electronically through Zoom, and the in-depth interviews consisted of 18 open-ended questions (Appendix F). I audio recorded all interviews, had the recordings professionally transcribed, and analyzed them using an inductive approach. Thematic identification occurred by way of open coding.

Because I conducted research in my current professional context in which I am the administrator tasked with supervising the CTE Department for one of the high schools in my

district, CTE personnel from my campus were excluded from participation in this study.

Additionally, steps were taken to ensure confidentiality and that each study participant was insulated from any potentially negative consequences and/or threats to their status as teachers or employees of the district.

Methodological Approach Rationale

The rationale of this design choice was rooted in a need for honest feedback and honest input from the participants within the CTE Department. This feedback was necessary to determine the true status quo, providing an unfiltered, clear picture of where the department is, where it has come from, and where it should head going forward. Additionally, this feedback may be essential in informing next steps, be they to maintain the status quo or to make purposeful, intentional minor and/or major changes to the direction of the CTE Department.

Another reason this methodological approach choice was made was to encourage reflection from CTE personnel and district leaders. Not only is reflection at the root of positive change (Calhoun, 2019; Campbell, 2013; Efron & Ravid, 2019; Manfra, 2019), there is ample extant literature outlining the importance of reflection in educational practice, due to its dynamic, restorative benefits (Campbell, 2013; Hendricks, 2017; Kidwai & Iyengar, 2017; Manfra, 2019; Stringer et al., 2019).

This methodological approach has also been determined to be beneficial in establishing and preserving equity in educational contexts (Kidwai & Iyengar, 2017; Sagor & Williams, 2016; Vaughan, 2019). Equity is imperative in this study, both in its inception, as well as in its potential findings. Additionally, any prescribed next steps and/or resulting recommendations for future study must be rooted in equity.

A final rationale for this methodological approach was its capacity to positively impact the culture of the CTE Department at my campus (Campbell, 2013; Kidwai & Iyengar, 2017; Vaughan, 2019). As a scholar-practitioner my aim was to influence the culture of the department I am tasked with overseeing based on systematic research and its evidence.

Assumptions, Limitations, and Delimitations of the Research

In this section, the basic assumptions and aims of CTE teachers, counselors, and administrators in WISD, all of whom were participants in this study, is addressed. The limitations of the study are listed, as it is important to understand what elements are missing to bolster the research. Finally, the delimitations or scope of the research are discussed as well, as the scope of the study speaks to the specificity of the subject area, in both content and locale.

Assumptions of the Research

This study assumed the following:

- 1. Study respondents were truthful in their responses.
- CTE personnel want CTE students to be successful, for their content area to be respected, and for their contribution to the school community to be recognized.
- 3. CTE personnel want CTE students to see a means whereby they may apply their newly acquired knowledge to create other opportunities for themselves in the future.
- CTE personnel want the school community to view the coursework covered in these
 classes as co-curricular; equally important to the school climate as traditional core
 courses.

Limitations of the Research

While there is no dearth of research revolving on importance of CTE programming in general contexts and/or Title I educational contexts (Bragg, 2017; Hemelt et al., 2019; Kitchel,

2015; Luaces et al., 2018; Mobley et al., 2017; Saeger, 2017; Zinth, 2013), there is little extant scholarly literature discussing the importance of CTE program administration in these contexts. The focus on administration was crucial to this study, so the foundation on which this study is built is not incredibly broad in scope.

Evidence abounds that CTE programming may play an integral role in bridging the opportunity gap for students who are not college-bound or actively pursuing a military career (Bragg, 2017; Dougherty, 2018; Hemelt et al., 2019; Luaces et al., 2018; Saeger, 2017; Zinth, 2013). However, these scholars did not posit anything substantial about the role leadership plays in these programs even as they claimed their studies' results and conclusions possessed the power to break cycles of generational poverty for secondary students. In that vein, this study would have been enhanced with more scholarly input to that end.

The contention that CTE programming is beneficial to the education of the whole child is settled science, with many scholars considering it to be on equal footing in terms of child development to supplementary course offerings like fine arts, athletics, and several cocurricular activities (Fletcher et al., 2018; Hemelt et al., 2019; Luaces et al., 2018; Mobley et al., 2017; Saeger, 2017; Wai-Ling Packard et al., 2012). With that stated, the substantial range of CTE researchers have not unearthed the reasoning behind the lack of intentional development of CTE program leaders, and/or a settled framework for leader selection. For example, a director of fine arts is likely to have spent most of their career in education providing instruction in the fine arts. A director of athletics is likely to have spent many years as a coach, fully immersed in the world of athletics. An ROTC director is likely to have served for years in the military, and as such, they are well-versed in the basics of running such a program. Where is the research delineating how

CTE administrators acquire the requisite background knowledge to lead that department? How are these leaders chosen? How are they developed?

Delimitations of the Research

The delimitations of this study included a small number of participants. Because this study was intended to benefit a specific context, it stood to reason to seek data from that specific context. Another delimitation of this study was, due to precautionary measures taken to mitigate the potential effects of COVID-19 on this campus, there was a drastic shift in face-to-face instruction at this campus. Consequently, while CTE teachers were still accessible for every aspect of this study, in-person access for in-depth interviews was severely limited, so fewer potential participants were provided an opportunity to provide the type of input that might be garnered from in-depth interviews.

Definition of Terms

The following term will be used throughout this study:

Achievement gap. This refers to the disparity in academic performance between groups of students. Measurables of the achievement gap include, but are not limited to, grades, standardized-test scores, course selection, dropout rates, and college-completion rates. The achievement gap simply notes the differences in achievement between groups of students (Howard, 2019).

Opportunity gap. This refers to the way uncontrollable life factors like race, language, economic, and family situations can contribute to lower rates of success in education, and career prospects. The opportunity gap seeks to explain the differences in achievement between groups of students (Gorski, 2017).

Conclusion

The importance of school leadership is clearly established (Clark & Cole, 2015; Manfra, 2019; Sebastian & Allensworth, 2012). Because it is universally understood that school leaders must be developed (Boberg et al., 2016; Grissom et al., 2019; Shaked & Schechter, 2018), great care and purposeful steps are taken to ensure that these appointments are not made hastily or without careful consideration. School leaders must do a great deal of delegating to effectively and efficiently perform the task of running a school, but what may often be lost in the minutia of delegating is the understanding that administration of specific departments within high schools, while delegated by the school leadership, are also leadership roles. As such, there should be careful consideration given to who holds these roles, and how these roles are developed (Berry, 2019; Boberg et al., 2016; Davis, 2015; Imperatore & Hyslop, 2017; Nicholas & Fleck, 2019).

Ultimately, a study of this kind holds the potential for positively impacting a school district. To that point, WISD is a large school district, including four comprehensive high schools, eight middle schools, 24 elementary schools, two early childhood centers, an alternative high school, the CTEC, and other specialized schools and centers. Two of its comprehensive high school campuses as well as the alternative high school campus are Title I campuses, so it stands to reason that several of its campuses at the middle school and elementary level are also Title I campuses. In that vein, this study is potentially beneficial to the entire CTE program of WISD.

In the next chapter of this study, I will provide a review of extant literature. In this review, I discuss scholarly input regarding the concepts of school administration, CTE programming in schools, and, more specifically, CTE program administration. I intend to unearth

and deliberate upon several key conclusions, findings, and methodological issues related to the gap in the knowledge of CTE program administration development.

Chapter 2: Literature Review

The problem I studied, as outlined in the first chapter, is a potential lack of intentional development of CTE administrators in WISD. Instead, effective leadership in this role may be presumed in the district as scholars posit it is assumed in many similar contexts (Bragg, 2017; Brodersen, et al., 2016; Dougherty, 2018; Haag, 2015; Hemelt et al., 2019). Given the importance of CTE programming, specifically in the positive impact it can have on its student participants (Gottfried & Plasman, 2018; Haag, 2015; Mobley et al., 2017), the need for more intentional study in the development of those that would lead these programs is clear (Estes & McCain, 2019; Ferguson, 2018; Jackson & Hasak, 2014; Shumer & Digby, 2012; Zirkle & Jeffrey, 2017).

It is widely understood that schools are supposed to be student-centered (Krahenbuhl, 2016; Moran & Larwin, 2017; Nguyen & Hunter, 2018), but the primary focus of this school-based research was positioned around the inputs the adult school stakeholders contribute to the campus, specifically, teachers and administrators. These are the two positions that most determine the likelihood of student success for the campus, and they work in concert to attain the overarching goal of ensuring student success (Berry, 2019; Clark & Cole, 2015; Yücesoy et al., 2020). Absent synergy between these two positions, it is highly unlikely that the campus could run effectively (Berry, 2019; Nguyen & Hunter, 2018; Yücesoy et al., 2020).

While both roles, if effective, are important and symbiotic in nature (Berry, 2019; Clark & Cole, 2015), in this study, it was especially paramount that the role of campus administrator be unpacked, as it was uniquely critical to the research. The review of the literature briefly discusses the importance of the campus administrator, buttressed by ample scholarly input. This is to establish the myriad facets of this crucial role on a campus. Additionally, it is intended to provide

evidence of the aspects of instructional leadership that are exclusive to the role of campus administrator. To that end, the problem of practice addressed in this study was derived from several of these leadership aspects.

CTE programming plays a vital role in this research, as it served as the backdrop of the entire study. As such, in this chapter I succinctly review three major benefits of CTE programming in public schools. Establishing why CTE programming is so key to the mission of the school is paramount, and while there are many reasons why it is important, this study focused on three justifications for this type of academic offering.

Finally, this chapter delves into the emphasis on CTE program administration specifically, as this role lies at the heart of the research. As discussed in the first chapter, there is a dearth of extant literature regarding the development of CTE program administrators. With that stated, there is ample scholarly literature delineating all the ways this specific academic discipline is different, and as such, serving as an administrator for this department would, at least in part, involve a different set of requirements than a more traditional, core academic discipline.

Why School Administration Is Important

It may be understood that teachers wield a great deal of power over the development of the young minds they are tasked with molding (Backor & Gordon, 2015; Balyer et al., 2017; King, 2017; Kiral, 2020; Krahenbuhl, 2016). What may not be universally agreed upon is the need for effective instructional leadership to ensure that the overarching goals of educating, training, and nurturing the future of society are consistently and effectively met (Balyer et al., 2017; Fleck et al., 2019; Khalifa, 2018; King, 2017).

This critical role is filled by campus administrators, who, among myriad other tasks, work with teachers to serve, lead, and support them in their efforts to educate their students

(Fleck et al., 2019; Khalifa, 2018; Reed & Swaminathan, 2016). Administrators are chiefly viewed as a source of student support (Martin et al., 2016; Sebastian & Allensworth, 2012), but they may also be one of the best sources of support for the classroom teacher (Backor & Gordon, 2015; Balyer et al., 2017; Clark & Cole, 2015; Kapa et al., 2018; Kiral, 2020; Williams & Welsh, 2017; Yücesoy et al., 2020). When the teacher needs assistance with supplementary and/or ancillary materials, guidance with classroom management, ensuring the academic success of their students, clarification on evaluation issues, advocacy with class scheduling, help with a student with whom they have found themselves at an impasse academically or behaviorally, or facilitating communication with the parents of their students, the first person the teacher would reach out to would be their administrator (Berry, 2019; Kapa et al., 2018; Kiral, 2020; Nguyen & Hunter, 2018). Often a primary function of the position of campus administrator is acting as a veritable buffer between disgruntled parents of students and teachers, disgruntled teachers and students, and disgruntled students and their teachers. Administrators may serve as either the peacemaker or the disciplinarian, often for the student and/or the teacher (Backor & Gordon, 2015; Martin et al., 2016; Moran & Larwin, 2017; Nguyen & Hunter, 2018).

As previously mentioned, administrators can be a great source of support for students (Martin et al., 2016; Nguyen & Hunter, 2018; Sebastian & Allensworth, 2012). Student support may mean different things to different students on the same campus, as each student on a given campus has their own specific set of needs. Administrators may be called upon by the students they serve for additional academic support, emotional support, guidance, and accountability, just to name a few needs. Effective administrators fill the needs of the students, and when they are unable to do so, they direct the students to someone that can (Nguyen & Hunter, 2018; Sebastian & Allensworth, 2012). Students that have issues with their teachers often view their assigned

administrator as their first line of defense and/or their best advocate on campus (Martin et al., 2016; Moran & Larwin, 2017; Yücesoy et al., 2020). To that point, student advocacy is a functional role of campus-based administration (Martin et al, 2016; Moran & Larwin, 2017; Nguyen & Hunter, 2018); effective administrators recognize that they work for the students and staff of their campus, in that order.

Finally, administrators serve as a liaison between the internal and external campus stakeholders (Berry, 2019; Kiral, 2020; Moran & Larwin, 2017; Nguyen & Hunter, 2018; Williams & Welsh, 2017; Yücesoy et al., 2020). In doing so, they are endowed with the ability to set the tone for the campus, being the voice of those inside the school to those outside the school, and vice versa (Backor & Gordon, 2015). When a campus-based decision that originated from the central office must be explained to the teachers on a campus, it is the administrator(s) that must carefully, yet informally, translate the message. Likewise, when the teachers on a campus take issue with a directive from the central office, it is the campus administrator(s) that must diplomatically, yet formally, share these concerns with the powers that be.

School Administrator Development

School administrator and preparation programs abound, and they vary from state to state. Outside of basic educational and professional prerequisites, which also may vary from context to context, school administrators are developed more through experience than through academic knowledge (Backor & Gordon, 2015; Boberg et al., 2016; Grissom et al., 2019; McCarthy, 2015; Reed & Swaminathan, 2016; Shaked & Schechter, 2018). Ultimately, administrative development involves ensuring an understanding of several key factors. Chief among these is remembering that first and foremost, school administration is a servant leadership position (Boberg et al., 2016; Davis, 2015; Shaked & Schechter, 2018). This means the primary function

of any school administrator is to provide support for all internal school stakeholders (Backor & Gordon, 2015; Berry, 2019; Davis, 2015; Imperatore & Hyslop, 2017; Nicholas & Fleck, 2019; Reed & Swaminathan, 2016; Williams & Welsh, 2017). Students, teachers, and support staff should all feel supported by the administration, and if any party does not, it is incumbent upon the administrator to address and correct this discrepancy (Berry, 2019; Grissom et al., 2019; Nicholas & Fleck, 2019).

It is also important for school administrators to remember a simple hierarchy - students come first. There is no school without students (Grissom et al., 2019; Hallinger & Bridges, 2017; Imperatore & Hyslop, 2017; Perrone & Tucker, 2019), and administrators should reflect an understanding of this pecking order in all their dealings on campus. This does not mean that students automatically get whatever they want; what it means is that all policies and procedures enacted as well as all decisions made as an administrator should be viewed through a student-centered lens (Boberg, et al. 2016; Hallinger & Bridges, 2017; Perrone & Tucker, 2019). In doing so, the best needs of the students will prevail in most, if not all, situations.

Regarding other facets of an effective administrator that must be developed, these include possessing relationship building skills, as education is an inherently relational profession (Fuller et al., 2016; Grissom et al., 2019; Imperatore, & Hyslop, 2017; McCarthy, 2015; Nicholas & Fleck, 2019; Reed & Swaminathan, 2016; Shaked & Schechter, 2018; Williams & Welsh, 2017). School administrators must display excellent verbal and written communication as well as collaboration skills (Campanotta et al., 2018; Nicholas & Fleck, 2019), as they will be called upon to routinely utilize both these requisite skillsets with both internal and external stakeholders. Effective administrators must possess (or subsequentially develop) humility, and a willingness to seek out help, partnership, and guidance (Boberg et al., 2016; Fuller et al., 2016;

Hallinger & Bridges, 2017; Perrone & Tucker, 2019; Shaked & Schechter, 2018). Finally, effective administrators are developed by experience. Much of this role must be learned by doing, making mistakes, and learning from them (Campanotta et al., 2018; Grissom et al., 2019; Imperatore, & Hyslop, 2017; McCarthy, 2015; Nicholas & Fleck, 2019).

Finally, effective school administration presumes, but does not require, mastery of specific academic content areas (Darling-Hammond, 2016; Koedel et al., 2015). Typically, school administrators must spend a specific amount of time providing support to students from the instructional side of education, serving as classroom teachers, before providing support to students and staff from the administrative side of education.

Texas classroom teachers must pass a certification exam centered around a specific content area, or a group of related content areas (Darling-Hammond, 2016; Koedel et al., 2015) before being certified to teach any subject in Texas. For example, math teachers must pass a math content exam, social studies teachers must pass a social studies content exam, and so forth. School administrators must pass a school principal certification exam to be certified as a school administrator (Anderson & Reynolds, 2015; Grissom et al., 2017), but this exam, which determines one's eligibility to lead a school, is not centered around leading a specific academic content area. Consequently, certified school administrators may be charged with leading content areas that they have no experience teaching, hence, they may not have mastered the content areas taught by the staff they are tasked with leading (Anderson & Reynolds, 2015; Grissom et al., 2019).

Benefits of CTE Programming

Every student in a high school takes math courses, but every student is not intending to be a mathematician. Likewise, every student must take English/language arts courses, but it

stands to reason that most students will choose a career path outside the realm of linguistics. Every student takes science but may not strive to become a scientist; and every student takes history, yet very few will become historians. Conversely, CTE programming is not made up of prerequisite courses, whereby students must take them and master them to be considered eligible for graduation. On the contrary, CTE programming consists of elective courses, classes students choose to take, primarily because they have a genuine interest in the subject matter and/or they wish to possibly pursue the content area as a profession (Stone, 2013; Stone & Lewis, 2012; Zinth, 2013).

According to the latest available statistics for this subject matter, which was the 2018-2019 school year, a higher percentage of high school graduates that took CTE programming while in high school were enrolled in college, employed, and both enrolled in college and employed than their counterparts, who did not take CTE courses in high school (Texas Education Reports, 2019).

It is widely accepted by educational leadership across the nation that CTE programming plays an integral role in the future of public, K-12 education in the United States (Shumer & Digby, 2012; Stone & Lewis, 2012; Yoon & Strobel, 2017; Zinth, 2013). According to the Association for Career and Technical Education (ACTE), in their 2018 yearly report of state policies impacting CTE, 42 states and Washington, D.C., enacted 146 policy changes related to CTE (CTE Policy, 2019). Specifically, 30 states enacted policies in 2018 that exponentially increased CTE funding for the sixth consecutive year (ACTE, Advance CTE Appreciate Additional CTE Funding Increase, 2019). The second most prevalent policy change in 2018 was increased budget allocation for the professional development of CTE teachers

(www.acteonline.org, 2019). This serves as evidence that there is a commitment at the nationaland state-level to advance CTE programming.

While I am confident that CTE programming has enhanced the educational experience of students and enriched the school community in my professional context, it has also proven invaluable outside my context for years. Scholars have posited at length about why CTE programming is important for individual students, school communities, and the larger society (Carter & Welner, 2013; Dinkins & Green, 2016; Jocson, 2018; Khalifa, 2018; Wise et al., 2019; Yoon & Strobel, 2017; Zirkle, 2017). In this section, I briefly discuss three distinct benefits of CTE programming and why these advantages are important to the vocation of education and to all who find themselves linked to this calling, and to the students and school communities in which educators are called to serve.

Closing the Opportunity and Achievement Gaps

The opportunity gap, or the conditions that students endure and/or must overcome to find success in their educational and/or career pursuits (Gorski, 2017; Hodes & Kelley, 2017), and the achievement gap, or the imbalance in academic performance between specific groups of students (Dittmann & Stephens, 2017; Gillborn et al., 2017; Howard, 2019; von Stumm, 2017), are perhaps most evident in Title I schools (Cox et al., 2015; Dinkins & Green, 2016; Dittmann & Stephens, 2017; Gillborn et al., 2017; Gorski, 2017; Hodes & Kelley, 2017; Howard, 2019; von Stumm, 2017). Because these problems are systemic in nature, the solution must be systemic as well (Jocson, 2018; Kotamraju, 2012), and CTE programming is best suited to address this problem systemically (Carter & Welner, 2013; Gorski, 2017; Jocson, 2018). It is perhaps for that reason that many scholars posit that CTE programming has transformative properties in rural and

urban areas, creating pathways that would otherwise be closed to many students (Dinkins & Green, 2016; Ferguson, 2018; Hodes & Kelley, 2017; Jocson, 2018; Wise et al., 2019).

Opportunity and achievement gaps notwithstanding, it could be argued that CTE programming is increasingly important, especially in a Title I campus, because it gives its students learning that feels inherently more intentional, more purposeful. Title I campuses traditionally have higher dropout rates, lower student engagement rates, and lower graduation rates than their more well-funded counterparts (Dinkins & Green, 2016; Dykzeul, 2017; Estes & McCain, 2019; Gorski, 2017; Jocson, 2018; Yoon & Strobel, 2017).

Conversely, according to a 2014 report from the Office of Career, Technical and Adult Education, the median high school graduation rate for students with a CTE concentration was 93%, which was an impressive 13% higher than the nationally adjusted cohort graduation rate of 80%.

If there was ample programming available that not only answered the timeless student refrain of "Why do I need to know this?" but also afforded its students an abbreviated, more immediate timeline for reaping the rewards of classroom engagement, it could be argued that this programming could be value added for the campus (Cox et al., 2014; Dykzeul, 2017; Hodes & Kelley, 2017; Peckham, 2014;).

Finally, scholars posit that CTE programming also provides its students a clearer path down an incessantly evolving career, labor market, economic, and social landscape (Dinkins & Green, 2016; Dykzeul, 2017; Fleck et al., 2019; Hodes & Kelley, 2017; Imperatore & Hyslop, 2017; Khalifa, 2018), arguably more than its counterparts in math, science, social studies, and language arts (Gorski, 2017; Jocson, 2018; Shumer & Digby, 2012). To that end, each school day, there are students in CTE classes from every stratum of society, and each student is learning

marketable skills that they can call to bear immediately upon their high school graduation, rendering them patently more hirable than many of their counterparts that are not enrolled in CTE courses (Imperatore & Hyslop, 2017; Kotamraju, 2012; Peckham, 2014).

CTE Programming and Skill Development

CTE programming is proven to be helpful to its participants, regardless of their career and/or educational track (Khalifa, 2018; M. A. Smith, 2017; Zinth, 2013). Research has provided evidence that CTE students were significantly more likely than their non-CTE counterparts to self-report developing skills like communication, problem-solving, critical thinking, completion of projects, basic research, communication, and time management while enrolled in high school (Dinkins & Green, 2016; Hodes & Kelley, 2017; Wise et al., 2019). This heightened development in CTE students provides evidence of the potency of CTE programming, even for students that do not go on to pursue careers in fields introduced by CTE programs.

Additionally, CTE programming develops skill-specific abilities for its participants. This is beneficial for CTE students because there is evidence that participation in skills-training programs results in an increase in initial wages and lifetime earnings (Dinkins & Green, 2016; Fleck et al., 2019; Khalifa, 2018; M. A. Smith, 2017; Yoon & Strobel, 2017; Zinth, 2013). Dinkins and Green (2016) also found that participation in CTE courses yields a higher likelihood of consistent employment and access to higher-quality jobs.

Perhaps equally important as skills developed is licenses and certificates earned, as they enable CTE students to be more hirable (Dykzeul, 2017; Fleck et al., 2019; Hodes & Kelley, 2017; Khalifa, 2018; Kosloski & Fritz, 2016). Statistics provide evidence that over 40% of licensed and/or otherwise credentialed employees earn more than those with an associate's degree, and over 25% of these same employees earn more than those with a bachelor's degree

(Hodes & Kelley, 2017; Zinth, 2013). One of the many benefits of a robust CTE program at high schools is students in these programs are afforded an opportunity to earn these licenses and certificates before they graduate (Estes & McCain, 2019; Dinkins & Green, 2016; Gorski, 2017; Jocson, 2018; M. A. Smith, 2017; Zinth, 2013).

Economic Benefits of CTE Programming

Furthermore, scholars contend that CTE programming may play a major role in driving the recovery of the U.S. economy (Ferguson, 2018; Kosloski & Fritz, 2016; Kotamraju, 2012; Imperatore & Hyslop, 2017; Lebesch, 2012; Wise et al., 2019). The logic behind this claim is the types of jobs that are hiring with the most immediacy and on the broadest scale are precisely the types of skilled professions that CTE students could be introduced to at the secondary level (Cox et al., 2014; Dinkins & Green, 2016; Hodes & Kelley, 2017; Kotamraju, 2012). Specifically, skilled workers, engineers, IT personnel, and nurses are just a few of the most high-demand jobs in the United States and CTE programming plays an integral role in preparing students for entrance into these career fields (Ferguson, 2018; M. A. Smith, 2017; Zinth, 2013).

Emphasis on CTE Administration

The idea of ensuring content area administrators possess a requisite background in CTE coursework is more exception than rule in the United States. As recently as 2017, only 16 states require CTE administrators to hold a CTE administrative credential (Clark & Cole, 2015; Fleck et al., 2019; Zirkle & Jeffrey, 2017); and Texas, where this study takes place, is not one of those 16 states. Additionally, as recently as 2018, only seven U.S. states possessed a formal program for CTE administrator training and certification (Clark & Cole, 2015). With that stated, most state CTE directors and superintendents surveyed by Clark and Cole (2015) claimed they

believed content-specific training was not only warranted, but they also believed it would be beneficial to their respective state education systems (Clark & Cole, 2018).

This emphasis notwithstanding, while budgeting for CTE programming and teacher professional development is increasing, the tide regarding ensuring that CTE administrators are experts in the content is shifting inversely (Clark & Cole, 2018; Fleck et al., 2019; Holecek et al., 2016; Kosloski & Fritz, 2016; Zirkle & Jeffrey, 2017). In fact, an increasing number of states are not requiring specific career, technical administration certification/licensure to supervise secondary CTE programs, with more states instead opting for a general administrative certification (Holecek et al., 2016; Zirkle & Jeffrey, 2017).

The Challenge of Being a CTE Administrator

Whereas most other areas of academic study are well-represented in the instructional schemas of most educational leaders (Fleck et al., 2019; Holecek, et al., 2016; Lochmiller, 2016; Öznacar, & Dericioğlu, 2017; Tas, 2017; Yu & Prince, 2016), CTE programming as an academic discipline is decidedly less represented. Although many academic content areas may remain partly static regarding concepts within their respective landscapes, CTE is certainly the exception (Broderson et al., 2016; Fleck et al., 2019; Imperatore & Hyslop, 2017). This is because the landscape of CTE coursework is perpetually fluid, as the broad array of careers, requisite skills, and technical mastery requirements represented within the discipline are dynamic and transitional.

Specifically, math concepts may shift in as much as how they are taught, but the concepts, at their core, remain static (i.e., addition, subtraction, multiplication, and division have remained constant as concepts). New contributions to the world of literature are made, but the instruction of English and Language Arts classes are hopelessly ensconced in what most literary

scholars agree are the timeless classics. To that end, Language Arts, as a content area, is relatively settled science. While history is made daily, and the earth's landscape is incessantly changing, basic social studies concepts, such as the information disseminated in geography courses, and the stories told in history courses, have remained relatively constant. With the static nature of these traditional core courses clearly established, serving as an administrator over these academic disciplines still requires extensive knowledge of, and, preferably, extensive experience in, instruction in these areas of study (Çevik & Özgünay, 2018; Fleck et al., 2019; Lochmiller, 2016; Martin et al., 2016; Öznacar & Dericioğlu, 2017; Tas, 2017; Yu & Prince, 2016).

Additionally, as many CTE teachers enter the classroom with a wealth of conceptual knowledge in their field, but little to no knowledge of or experience in formal teaching methodology training, the burden of ensuring quality instruction in CTE courses is, if not exponentially higher, at least incredibly different than that of the average content-area administrator (Clark & Cole, 2015; Yost et al., 2019; Zirkle & Jeffrey, 2017). In that vein, simply holding an educational administrator certification does not necessarily qualify one to be an effective CTE administrator (Clark & Cole, 2015; Yost et al., 2019; Zirkle & Jeffrey, 2017). Scholars point out that even state CTE directors had reservations that administrators that oversaw CTE programs at the campus level are lacking, not only in CTE instructional knowledge, but also in critical CTE programming knowledge, like program costs, funding, marketing, policy development, safety and liability issues, facility maintenance, knowledge of licensure requirements for staff and students, and program development through community and business partnerships (Clark & Cole, 2015; Clark et al., 2010; Yost et al., 2019; Zirkle & Jeffrey, 2017). To that point, Clark and Cole (2015) posited that "it is deeply concerning that administrators with little experience in the pedagogy, expectations, accountability, and theoretical frameworks

of CTE are hiring and evaluating instructors and providing leadership for cutting edge CTE" (p. 76). This serves as proof that CTE administration is embedded with many challenges, and simply assuming these challenges have been met, mastered and/or overcome is inherently problematic and potentially detrimental to the overall health and development of CTE programs and its students.

CTE courses are incessantly given to robust changes, and to keep abreast of this shifting landscape, CTE leaders are value-added to their programs if they commit to continuing education (Davis, 2015; Fleck et al., 2019; Kosloski & Ritz, 2016; Imperatore & Hyslop, 2017; Martin et al., 2016; Yu & Prince, 2016; Zirkle & Jeffrey, 2017). To that end, if an administrator who is selected to lead the CTE department at a campus is not a former CTE teacher, there is, at the outset, a content-area knowledge deficit that this administrator must work to overcome (Çevik & Özgünay, 2018; Holecek, et al., 2016; Kosloski & Ritz, 2016; Tas, 2017; Zirkle & Jeffrey, 2017). In addition to this knowledge deficit, the administrator may also have to overcome the content-area skills deficit, as they may not have any expertise in how the requisite skills taught to students in these courses fit into the lesson cycle (Holecek et al., 2016; Khalifa, 2018; Martin et al., 2016; Öznacar & Dericioğlu, 2017; Tas, 2017; Zirkle & Jeffrey, 2017).

CTE Administration Development

Not only is it imperative to select appropriately when determining who will lead the CTE department, it is also imperative that this leader be developed (Berry, 2019; Davis, 2015; Imperatore & Hyslop, 2017). Ideally, it is preferable for CTE administrators to have a background in CTE instruction (Boberg et al., 2016; Nicholas & Fleck, 2019; Sambolt & Blumenthal, 2013; Shaked & Schechter, 2018; Stone & Lewis, 2012). This is typical of administrators from other content areas (Berry, 2019; Campanotta et al., 2018; Grissom et al.,

2019; Yost et al., 2019), but this is not always possible in every context. Having a background in CTE instruction could prove helpful to a CTE administrator, because they would likely have experience understanding and dealing with critical aspects of CTE instruction, like accountability and career, college, or military readiness (CCMR) concerns for the CTE department; scope and sequence, and/or curricular elements for teachers; and advising and counseling issues for students (Sambolt & Blumenthal, 2013; Stone, 2013; Stone & Lewis, 2012; Stubbs & Stubbs, 2017). Absent this background, the CTE administrator would need to learn about the department they are charged with leading, with all the embedded intricacies and idiosyncrasies of the content areas and the staff (Stone, 2013; Sambolt & Blumenthal, 2013), which is no small undertaking.

With that stated, the main cog in the development of CTE administration, per many scholars studying this role, is fostering a spirit of collaboration (Boberg et al., 2016; Nicholas & Fleck, 2019; Sambolt & Blumenthal, 2013; Shaked & Schechter, 2018; Stone, 2013; Stone & Lewis, 2012; Stubbs & Stubbs, 2017). To that point, leading a CTE department is an exercise in endless collaboration, be it due to accelerating the learning curve for the administrator and/or the CTE faculty (Yost et al., 2019), working with others in positions of stewardship within the department, or in growing the program to reach more students and cover more potential career fields (Nicholas & Fleck, 2019; Shaked & Schechter, 2018; Stone, 2013).

Collaboration

Even with a background in CTE, but especially absent one, development of CTE administrators requires a great deal of collaboration, specifically with the campus CTE counselor. The CTE counselor has, as their primary role, collaboration, be it with CTE teachers, the rest of the counseling staff, the CTE department chair, and with local leaders of academic institutions, industry, and the community (Boberg et al., 2016; Nicholas & Fleck, 2019; Shaked

& Schechter, 2018; Stubbs & Stubbs, 2017). The campus CTE counselor is tasked with CTE course scheduling and course sequencing (Sambolt & Blumenthal, 2013; Shaked & Schechter, 2018; Stubbs & Stubbs, 2017). This individual incorporates systems thinking and their understanding of career clusters and career pathways to ensure all CTE students have access to the courses they need, and a seamless track to the success they seek (Grissom et al., 2019; Sambolt & Blumenthal, 2013; Stone & Lewis, 2012; Stubbs & Stubbs, 2017; Yost et al., 2019). This professional serves as the point of contact for both college and technical institution scholarships, grants, and other financial aid options for CTE students. The CTE counselor also serves as the gatekeeper for student access to industry certifications testing and job placement for the CTE students of their campus (Stone & Lewis, 2012; Stubbs & Stubbs, 2017).

More Collaboration

To be an effective CTE administrator, forging and maintaining solid partnerships must not be limited to synergy with the CTE counselor. The administrator must work harmoniously with the CTE department chair as well (Nicholas & Fleck, 2019; Yost et al., 2019). This role is tasked with serving as the liaison between the entire CTE department and the larger school community (Sambolt & Blumenthal, 2013; Stone & Lewis, 2012; Yost et al., 2019; Zirkle & Jeffrey, 2017). Often the needs and concerns of the department are intimated to the administrator by the department chair, and often campus policies and procedures are translated from the administrator to the CTE department by the department chair (Grissom et al., 2019; Zirkle & Jeffrey, 2017).

Program Growth (Via Collaboration)

The CTE administrator is charged with promoting communication and collaboration between internal stakeholders, such as CTE teachers and current CTE students, to facilitate

program growth and development (Yost et al., 2019; Zirkle & Jeffrey, 2017). Likewise, the CTE administrator is also tasked with facilitating communication and collaboration with external stakeholders, such as community leaders, industry professionals, academic and technical institution personnel, and former CTE students, to assist in developing the program (Clark & Cole, 2015; Yost et al., 2019; Zirkle & Jeffrey, 2017). These partnerships can aid the CTE administrator with the task of growing the CTE program, ensuring it reaches as many students as possible, and in ensuring that the CTE program effectively serves the needs of every student it reaches (Boberg et al., 2016; Clark & Cole, 2015; Sambolt & Blumenthal, 2013; Stone & Lewis, 2012; Yost et al., 2019; Zirkle & Jeffrey, 2017).

Leadership Theory

The primary leadership theory that applies to the practice within this study is transformational leadership. This leadership style is one that encourages intrinsic motivation and yields maximized performance for the purpose of creating meaningful change within an organization (Ismail & Mydin, 2019; Kwan, 2020; Owusu-Agyeman, 2021). If CTE programs, the content of which are perpetually in flux, are to flourish, leaders of these programs must constantly adapt, finding innovative ways to encourage productivity and facilitate progress (Bass, 2006; Kwan, 2020). Focused, as mentioned earlier, on program growth and continuous improvement, effective CTE program administration requires mastery of two of the basic tenets of transformational leadership—idealized influence and individual consideration (Kwan, 2020; Stone, 2013; Yost et al., 2019; Zirkle & Jeffrey, 2017).

To the point of idealized influence, as a CTE PA, one must garner support of those under their purview around novel methods for facilitating student success. Specifically, even if the *what* and *why* regarding student success are typical, the *how* in CTE programming is often quite

atypical. This novelty is based on ideals, and the influence CTE PAs enjoy is due in part to the novelty of these ideals. For example, a welding teacher may understand that a student is placed in their classroom to learn a marketable skill, gain interest in a trade, and/or earn a certification or credential, if for no other reasons than to provide the student with an option after graduation and to bolster the CCMR points of the campus. These are ideals that are sacrosanct to CTE teachers, and the situation provided as an example is not at all uncommon in many CTE courses; it is simply understood by CTE teachers. Conversely, one might argue that this situation and the reasoning behind it might be completely foreign to a French teacher.

In keeping with idealized influence, individual consideration may also play a critical role in facilitating student success in CTE coursework, chiefly because the *who* may be inherently different in a CTE setting than it would be in a core content area classroom. The student that takes forensic science or culinary arts or computer programming or auto mechanics typically does so for a specific reason. Consequently, it is likely their motivation is different in that class than it may be in their algebra class, which they took because it was a required course. The same could be said of the CTE teachers when compared to those that teach core content courses. In that vein, the *why* of the *who* must be considered in CTE programming, both for the CTE student and the CTE teacher. It is this constant consideration of the intrinsic motivation of the individuals in the program, coupled with the assumed desire for continuous progress and growth within the perpetually fluid program, that warrants transformational leadership (Bass, 2006; Ismail & Mydin, 2019; Kwan, 2020; Owusu-Agyeman, 2021).

Conclusion

Schools are inherently student-centered institutions, and leadership of schools demands a student-centered line of reasoning from all internal stakeholders, regardless of the content area

being studied (Krahenbuhl, 2016; Landers, 2019). CTE programming calls for an even higher level of student-centeredness (Castellano, Sundell, et al., 2017; Cox et al., 2015), as it is more likely that the students that enroll in these courses do so with a deeper level of intentionality than they do when they enroll in biology or algebra. Additionally, leadership of CTE programs requires a student-centered leader that possesses the ability to work in concert with others entrenched in the department to collegially and collectively ensure high levels of student achievement (Broderson, et al., 2016; Fleck et al., 2019; Imperatore & Hyslop, 2017).

The literature provided evidence of the importance of school administration regarding the task of ensuring student success (Backor & Gordon, 2015; Balyer et al., 2017; Fleck et al., 2019; Kapa et al., 2018; Khalifa, 2018; King, 2017; Kiral, 2020; Landers, 2019; Martin et al., 2016; Reed & Swaminathan, 2016; Sebastian & Allensworth, 2012; Williams & Welsh, 2017; Yücesoy et al., 2020), and it described why CTE programming administration, replete with its myriad unique challenges, calls for a varied approach in its administration from the more traditional, core content areas of study (Berry, 2019; Campanotta et al., 2018; Grissom et al., 2019; Tuckwiller et al., 2017; Yost et al., 2019). To that point, it is established that collaboration, collaboration, and more collaboration would help to build CTE departments and develop leadership within the department, specifically for the administration of that department (Boberg et al., 2016; Clark & Cole, 2015; Grissom et al., 2019; Nicholas & Fleck, 2019; Sambolt & Blumenthal, 2013; Stone & Lewis, 2012; Yost et al., 2019; Zirkle & Jeffrey, 2017).

More research is needed to bridge the knowledge gap in what determines an effective CTE administrator. CTE as an academic discipline is patently different from traditional core courses, and as such, it requires different traits and skillsets from those that would lead these departments (Boberg et al., 2016; Landers, 2019; Shaked & Schechter, 2018; Stone, 2013;

Tuckwiller et al., 2017; Yost et al., 2019). This study is intended to contribute to the dialogue concerning CTE administration efficacy and effectiveness and all that it entails.

In the next chapter of this study, I will describe the methodology of this in detail, including the methods I chose and the rationale behind the chosen methods. Not only will these methods be identified and justified, but I hope to unearth the insight as to how I fit in and applied these methods to the research setting. The research setting is exhaustively described, replete with a thorough elucidation of the research subjects, data collection procedures, and the statistical treatment of collected data. To that end, I unpack any ethical considerations associated with the research and its participants in the next chapter. Additionally, I clarify the research design.

Accompanying this synopsis is a rationale and evaluation of the design choice, and a description of any limitations associated with the research design. Finally, I summarize the next chapter and preview the following chapter.

Chapter 3: Methods

This chapter presents the methods for this case study. Utilizing a case study approach provided insights from CTE participants working in the CTE Department in the district.

Acquired data and subsequent interpretation may provide a basis for best practices in, and theory of action for, the future of CTE administration in this and other similar school districts. The research questions, literature review, research methodology, and research approach of this study are outlined in this chapter. Other primary components of this chapter include the research plan and procedures, study participants, method of analysis, and ethical concerns.

Research Questions

One overarching goal of the study was to develop a theory of action for CTE administrator development by addressing questions centered on three key research questions:

RQ1: What constitutes effective CTE program administration in WISD?

RQ2: What steps are taken by WISD to facilitate the effectiveness of CTE program administrators?

RQ3: Is effective CTE program administration in WISD assumed or developed?

Research Methods

The methods for this research derived from illustrative case study. I selected this qualitative methods variant because my principal aim in this research was to investigate the problem within its actual context, thereby explaining the phenomenon by utilizing feedback from those who have experienced it (Astalin, 2013; Harreveld et al., 2016; Harrison et al., 2017; Ridder, 2019; Ritchie et al., 2013; Woodside, 2010). To that end, insight received from those who have contended with this phenomenon was value added in informing how best to address

the phenomenon going forward (Algozzine & Hancock, 2016; Harreveld et al., 2016; Ridder, 2019; Yates & Leggett, 2016).

Case Study

Utilizing case study for this research yielded a more methodical investigation of the problem of practice, given the feedback provided was based on the lived experiences of those within the specific context (Merriam, 1998; Stake, 1995; Yazan, 2015; Yin, 2017). In addition to explaining experiences, scholars have posited that this selected research design is appropriate when examining experiences and perceptions of research participants (Kegler et al., 2019; Ritchie et al., 2013; Skarbek, 2020; Yates & Leggett, 2016; Yazan, 2015; Yin, 2017). This factor—the examination of experiences and perceptions—played an important role in Chapter 5 in the discussion of the findings.

Another aim of this research was to provide practical insight that may be accomplished through case study (Algozzine & Hancock, 2016; Bartlett & Vavrus, 2016; Harrison et al., 2017; Yin, 2017). This case study acquired qualitative data that I later analyzed, and qualitative analysis accounts for the intricacies and complexities of social and organizational phenomena (Astalin, 2013; Dougherty, 2017; Harreveld et al., 2016), characterizing them, so the phenomenon might be viewed through a practical lens (Dougherty, 2017; Kegler et al., 2019; Yates & Leggett, 2016). In providing this characterization, the phenomenon was seen in its totality, including how it seemed in practice, how it worked, and how it was affected by other patterns in the organization (Kegler et al., 2019; Skarbek, 2020; Whitehead, 2019).

This overarching methodology was also chosen because qualitative methods may be helpful in uncovering context (Kegler et al., 2019; Skarbek, 2020). Context is critical in both conducting and evaluating research (Anderson, 2017; Whitehead, 2019). In that vein, choosing

this method not only provided me with needed context for conducting and evaluating this study, but it also provided critical context for future study.

Illustrative Case Study

This research was an illustrative case study, which is, at its root, a descriptive study. What is depicted or illustrated is the status quo of a phenomenon. For this research, my goal in using this type of case study was to shed light on situations within an organization that may be foreign to many within that organization (Harrison et al., 207; Woodside, 2010; Yin, 2017). Specifically, this research was exploratory in nature, meaning the aim of this research was to potentially provide evidence that more study is needed on the problem statement (Ridder, 2019; Woodside, 2010; Yin, 2017).

Constructivist Approach

This illustrative case study adopted a constructivist approach. The constructivist inclination leads with the notion of inherent subjectivity, viewing all matters of the human experience through the lens of relativism (Bryant, 2017; Chun Tie et al., 2019; Glaser & Strauss, 1967; Morse et al., 2016; Stern & Porr, 2017). Focusing on a subjective view was ideal for this research. In this study, I leaned on this constructivist approach, or this subjective view of the human experience, primarily because I sought to code experiences into core concepts (Charmaz & Thornberg, 2020; Glaser & Strauss, 1967; Stern & Porr, 2017) and build a theory of action based on that conceptualization. Additionally, using the constructivist approach afforded me a means of interpreting and converting individual and shared experiences of study participants into abstract terms that could then be purposed into the building blocks of theory, and, hopefully, the underpinnings of subsequent, larger-scale research (Bryant, 2017; Charmaz & Thornberg, 2020; Dougherty, 2017; Glaser & Strauss, 1967; Morse et al., 2016).

Limitations of Case Studies

This case study was single-case research, intended on developing a deeper understanding of a particular phenomenon (Merriam, 1998; Ritchie et al., 2013; Yin, 2003; Yin, 2017). One of the limitations of this approach is the data may be viewed as inherently less reliable than data derived from multiple-case research. I mitigated this limitation by virtue of my transcription and coding plan (explained in greater detail later in this chapter).

Another limitation of this type of research was that data integration and analysis were a challenge because of the volume of information that this type of research produced (Merriam, 1998; Ritchie et al., 2013; Stake, 1995; Yin, 2003). I mitigated this limitation with my data analysis plan, which is outlined in detail later in this chapter.

The Researcher

I have worked in education for 24 years, holding a Bachelor of Arts in Sociology and a Master of Education degree with a focus on educational administration. I have been trained by Abilene Christian University to employ the necessary skills to carry out the designed study. This training proved critical to the success of the study.

I have interviewed many people for the purpose of filling campus- and district-level positions during my career. This includes hiring teachers, coaches, campus administrators, and district-level administrators. I currently serve as an assistant principal at a Title I high school in a relatively large school district in North Texas.

Study Participants

The study participant sample was drawn from district CTE teachers, CTE counselors, CTE PAs, campus administrators from other high schools in the district, and select teachers and administrators from the CTEC, the hub of CTE coursework for the district. The sample size for

this study was 38. I chose the sample because these participants had knowledge of the inner workings of the CTE program, and/or they were privy to the byproduct of these inner workings by way of their dealings with CTE personnel and/or CTE students.

All study participants completed an informed consent form, as shown in Appendix B, as it was a prerequisite to participating in this study. It was anticipated that approximately 30–45 participants would be needed for this study. The final number of participants was 38, as determined by saturation (Hennink et al., 2017). All participants spoke English fluently. I recruited all participants using the invitation to participate, shown in Appendix A. All participants were thanked for their participation, both in advance and after their participation was completed.

Participant Recruitment

Study participants who serve as professional staff in the district were given a brief questionnaire, featured in Appendix D, to assist in selecting professional staff members who would represent seasoned professionals familiar with the inner workings of the district and/or its CTE program. Teachers in their first year of instruction in CTE courses in the district were excluded from this study. The rationale behind this exclusion was that it would be beneficial to solicit feedback from professionals who have chosen to lead CTE courses for more than 1 year. In doing this, the study benefitted from the perspectives of professional staff members who are intentional about choosing CTE coursework as an instructional track. Finally, I took steps to ensure that selected study participants that were CTE teachers represented as many CTE course offerings as possible to elicit feedback from a broad swath of perspectives.

The study participants that served in the district as administrators were given the same brief questionnaire to assist me in selecting administrative participants that would represent the

most seasoned district CTE administrators. District CTE administrators in their first two years of CTE administration were excluded from this study. The rationale behind this exclusion is that it benefitted the study to solicit feedback from administrators who had at least a full year of experience prior to the Covid-19 pandemic (which prematurely ended the 2019–2020 school year), because I deemed them to have the most knowledge of the typical administrative duties of CTE administration in the district.

Data Collection

The data collection methods I utilized in this study were interviewing, field research, and a questionnaire. Using interviewing as a data collection method provided valuable insight from the most senior members of CTE instruction and administration. Utilizing field research enhanced the research by providing insight from CTE personnel from various secondary campuses in the district. Finally, utilizing surveys as a data collection tool provided insight from those in the field that is being researched, irrespective of their level of expertise.

Baseline Interviews

I conducted baseline interviews (BIs) only after receiving and confirming the written and verbal consent of the interviewees. BI questions are included in Appendix E. I composed notes from each interview following each interview session, and these memos served as a means of capturing thoughts from the interviewer and insights from the interviewees (Bevan, 2014). Because of concerns regarding the spread of Covid-19, I conducted interviews remotely and recorded each interview via Zoom with the permission of the interviewee, using the record feature in Zoom.

I retained the services of a professional transcription service to transcribe each interview, replacing identifiable information of the interviewee with alias information. I destroyed the

recording in accordance with the agreement made between myself and the interviewees. Finally, I coded the interview transcriptions, utilizing the words of the interviewees to interpret their feedback (Leech & Onwuegbuzie, 2011; Manning, 2017).

The format of the interviews remained consistent throughout the study, beginning with open-ended questions about the participants' opinions of and experiences with CTE administration. While all questions in the interview were open-ended, they ranged from general, insightful questions, to more intensive, procedural questions. The interviews ended with general questions, intended to be prescriptive or instructive. The rationale behind this format was to ensure, as best as possible, that data collected grew in depth throughout the interview (Charmaz & Thornberg, 2020; Dougherty, 2017; Palinkas et al., 2015).

Key Informant Interviews

To provide additional insight and to assist with triangulation for data analysis, I conducted in-depth interviews (IDIs) with key informants (Faifua, 2014; Spradley, 2016). These interviews were also conducted via Zoom and recorded, with the permission of the interviewee, using the record feature in Zoom.

Study participants identified as key informants included district leadership, district CTE program leadership, campus leadership, and senior CTE personnel from the three district high schools utilized for this study. The rationale behind using key informant interviews in this study was twofold: (1) to gain insight from people in positions of leadership in the district and in the CTE Department as to what steps are taken in determining how CTE PAs in WISD were or were not trained and/or developed, and (2) to gain insight about the past, current, and potential features of CTE program administration from the perspectives of those that have served in the district's CTE Department for more than a decade.

Key informant IDI questions (Appendix F) were open-ended and used invitational language. The goal of these interviews was to unearth systemic data, seeking to uncover more information regarding the goals of CTE program administration from both the perspectives of those that choose these leaders and from those that have likely served under the leadership of multiple CTE PAs in the district. This insight was critical for triangulation purposes in the data analysis stage of this study (Faifua, 2014; Gilchrist, 1992; Spradley, 2016; Taylor & Blake, 2015). IDIs were done individually to help ensure transparency and to mitigate any potential risks associated with sharing information publicly in the presence of supervisors.

As was done with the BIs, for the key informant interviews, I retained the services of a professional transcription service to transcribe each interview, replacing identifiable information of the interviewee with alias information. Next, I destroyed the recording in accordance with the agreement made between myself and the interviewee. Finally, I coded the interview transcriptions utilizing the words of the interviewees to interpret their feedback (Leech & Onwuegbuzie, 2011; Manning, 2017).

Procedures Followed

Approval to conduct this study was sought from and received by the Abilene Christian University Institutional Review Board (IRB; see Appendix G). Following receipt of this approval, I contacted the district executive director of CTE by phone to request permission to contact the desired participants, most of whom are under her supervision, to request that they consider participating in this study. After this approval was given, I contacted the campus principals of three high schools and the principal of the CTEC, all via phone, to request their permission to contact some of their employees for participation in this study. After permission was granted, I contacted the desired participants via email, using the Email to Potential

Participants, found in Appendix A. The executive director of CTE, their campus principal and I assured them that potential participants were free to participate in this study if they freely chose to do so.

Potential participants responded via email confirming they agreed to be study participants. Working from the sample of potential participants, respondents that agreed to participate in the study were screened using a survey, as shown in Appendix C, ensuring all participants met the selection criteria. After receiving responses from the demographic questionnaires, several CTE teachers and three CTE counselors from each of the other three district comprehensive high schools included in the study were selected for participation. In addition, several teachers from the CTEC, the CTEC counselor, and the CTEC campus principal and assistant principal were included in this study. This brought the total number of study participants within the optimal range of 35–40 participants, which was determined to be the point of code- and meaning-saturation (Hennink et al., 2017), whereby no new phenomena or theories would be grounded by the data received (Bryant, 2017; Charmaz & Belgrave, 2012; Charmaz & Thornberg, 2020; Glaser & Strauss, 1967; Hennink et al., 2017).

Field Research

The primary goal of field research as a data collection tool is to gain an understanding of the lived experiences of people in an environment that is germane to the subject matter being researched (Chughtai & Myers, 2017). Observation is the lynchpin of field research (Bailey & Bailey, 2017; Feldman, 2019; Phillippi & Lauderdale, 2018), and in this study I utilized it as a means of observing and documenting the lived experiences of study participants while they were in the environment being studied (Feldman, 2019; Phillippi & Lauderdale, 2018). For this study,

the field research was extended to observations in my professional context—the high school in which I work.

Questionnaire

This tool proved useful in this study because it may afford me an avenue by which a large amount of pertinent data can be mined. The main goal of data collection is to aid in data analysis (Callegaro & Yang, 2018), and this is best facilitated by getting as much data as possible (Miller, 2017). Questionnaires served as an integral part of the data collection for this study because it allowed me to determine those individuals that should be included in the study (Miller, 2017). The brief questionnaire, found in Appendix C, asked simple questions with the aim of aiding me in participant selection.

Consent and Privacy

I received a signed informed consent form (Appendix B) from each study participant before they took part in the study. I interviewed participants via Zoom, and in each interview, the participant and I were each in separate rooms with no others present. To help ensure privacy during the interview process, I requested verbal confirmation from each study participant that they were in fact in a private room with a closed door. As another step to help guarantee privacy, no study participant had access to any feedback provided by other study participants.

Each interview was recorded with the verbal and written consent of the participants using the recording feature in Zoom. In addition to recording the interviews, each interview was professionally transcribed.

Interview Question Modifications

As is the case with this type of research, new phenomena and theories were uncovered during the research process (Charmaz & Belgrave, 2012; Charmaz & Thornberg, 2020) based on

the data received during the interview and coding process, and as such, there were minor edits within the interview questions. While I deleted no questions from the interviews, I added modifications of existing questions and some new questions. The interviewees whose responses inspired these modifications were contacted again for follow-up purposes.

Addendums and Retractions

Each interviewee was granted the ability to view their transcript. I took this step to afford each interviewee a chance to be reflective regarding their responses and to add any insights they wished to include. No interviewee was asked to retract any of their insights, but they were informed that if they felt strongly that a retraction would be necessary, it would not be refused. If any interviewee wished to add or delete any such insights, these addendums and retractions would have been considered a product of the interview and coded as such during the coding stage of the study. No addendums or retractions were requested or made during this study.

Memo Writing

To minimize potential bias, I wrote memorandums throughout the research to help ensure the study benefitted from reflection, which bolstered objectivity (Charmaz & Belgrave, 2012; Charmaz & Thornberg, 2020; Glaser & Strauss, 1967; Rogers, 2018). This not only served as a reflective tool for me, but it also served as a means of preventing conflation of data-imposed theory from theory surmised from my thoughts (Charmaz & Belgrave, 2012; Charmaz & Thornberg, 2020; Glaser & Strauss, 1967; Rogers, 2018). Memos included my reflections throughout the study, notes regarding categories during the coding stage, and theories that might emerge from the data provided in the interviews.

Data Analysis

Because the study participants represented multiple roles within the district, and because the study involved multiple data collection methods, triangulation played a key role in the data analysis. Triangulation was beneficial because it increased confidence in the research data, provided diversity and quantity of data for analysis, and it bolstered the validity, and perhaps more importantly, the utility of the findings (Flick, 2004; Leech & Onwuegbuzie, 2007; O'Donoghue & Punch, 2003; Patton, 2002; Patton, 2015).

Data Triangulation

Data triangulation involves utilizing multiple sources of information to enhance the validity of a given study (Flick, 2004; Leech & Onwuegbuzie, 2007). In this study data triangulation was provided by various types of participants within the district, including CTE teachers, campus-level CTE administrators, campus administrators, central administration, and district-level CTE administrators. Additionally, there will be two separate sets of interview questions; one for the baseline interview (BI), and one for the key informant in-depth interview (IDI). Having two sets of interview questions was intended to help find common themes from different groups of stakeholders, as well as to look for areas of divergence from these groups of study participants (Palinkas et al., 2015; Patton, 1990). Feedback from these groups was varied, and this variance broadened the data, enhancing the opportunity for data analysis. Because there were areas of agreement and areas of divergence across these stakeholder groups, this led to a more fulsome body of data to analyze (Flick, 2004, Patton, 2002; Patton, 2015).

Methodological Triangulation

While using multiple sources of data played a pivotal role in informing what information was deemed principal in this study, ensuring more than one strategy was utilized to create a more

accurate depiction of the status quo in the district was equally important (O'Donoghue & Punch, 2003; Patton, 2002; Patton, 2015). To that end, this study utilized methodological triangulation, involving the use of multiple qualitative methods to garner data from various mediums.

Examples of qualitative methods used in this study included questionnaires, BIs, and key IDIs.

Gathering data in multiple ways proved instrumental in creating a more robust and effective study.

Coding

In addition to triangulation, coding played a critical role. Coding was especially important because it aided in capturing the messages that transcription could not (Deterding & Waters, 2018; Parameswaran et al., 2020), as nonverbal cues often convey useful data (Chandler et al., 2015; Parameswaran et al., 2020). Additionally, coding served as a stopgap, preventing my winnowed focus from leading to engrossment in any facet or details in the study (Chandler et al., 2015). To further secure an assiduous analysis, I conducted several coding passes. This occurred because it was determined that reanalysis of the interview data would facilitate a more meticulous, thorough analysis of the data, leading to stronger, more reliable theories (Deterding & Waters, 2018).

Open Coding

In this study, open coding, or line-by-line coding, was one of the forms of coding I utilized (Bryant, 2017; Hennink et al., 2017; Morse et al., 2016). Open coding involved coding and chunking to find meaning line-by-line (Bryant, 2017; Hennink et al., 2017; Morse et al., 2016). Utilizing this technique, which typically results in numerous codes, is believed to have aided me by allowing the data to bring forth theory (Deterding & Waters, 2018; Morse et al., 2016).

Theoretical Coding

Open coding, comparing codes and groups, and looking at relationships between the emerged codes and groups led to theoretical coding. In that vein, theoretical coding is an iterative process that scaffolds the process of open coding (Cope, 2016; Deterding & Waters, 2018; Charmaz & Belgrave, 2012). Theoretical coding helped me more clearly understand the relationships between *categories* of data within the context of the study (Deterding & Waters, 2018; Hennik et al., 2017). In doing so, I created meaning about my professional context from the coded data. The analysis of this data informed me of the general insights of those within my professional context about the problem of practice presented in this study. This process was also reflective, so memos played an integral role in creating and comparing these theoretical codes (Charmaz & Belgrave, 2012; Morse et al., 2016).

Trustworthiness

In qualitative studies, trustworthiness and transparency are directly correlated to the utility of the study (Connelly, 2016; Creswell, 2013; Pratt et al., 2020). It is, in essence, the confidence the reader has in every aspect of a study, including the data outlined, its interpretation, the methods utilized, and its findings (Connelly, 2016; Creswell, 2013; Daniel, 2019; Korstjens & Moser, 2018). The trustworthiness of this research is marked by the presence of the typical criteria of an effective qualitative study—credibility, transferability, dependability, and confirmability (Connelly, 2016; Creswell, 2013; Pratt et al., 2020). In this section, these criteria, their relevance to, and their presence in the study will be addressed.

Credibility

This study was credible because its participants were credible. The participants were professionals in their field. Additionally, this study was credible because it utilized the same

standards, processes, and procedures of other trustworthy case studies. To that point, any variations to the standard operating procedures were justified in this study. In that vein, the reader of this study should find the study and its findings credible (Korstjens & Moser, 2018; Mayan, 2009).

Transferability

While it is not up to me to determine the transferability of my study (Korstjens & Moser, 2018), painstaking measures were taken to create a vivid description of every facet of this study. These aspects include, but are not limited to, the problem of practice, the setting, the winnowing of potential study participants, the interview questions, and the data uncovered. With that stated, this study may not be transferable in every context, but in this study, the reader is provided with ample information to make such a determination.

Dependability

Consistency with the data mining and analysis plan was key to ensuring the dependability of the research results. I took purposeful steps to ensure that the accepted standards for this research design were followed precisely throughout this study. Additionally, I utilized an audit trail (Korstjens & Moser, 2018), compiling memos outlining every facet of the research process.

Confirmability

Confirmability speaks to my objectivity in conducting the research and in explaining the findings of the research (Creswell, 2013; Daniel, 2019; Korstjens & Moser, 2018). While I held opinions throughout the study, they are only displayed here when specified as a product of my experiences as a CTE PA. I took steps to ensure objectivity and to mitigate bias, acting as a neutral researcher, irrespective of the data uncovered. Likewise, the findings were, in keeping

with the selected methodology, grounded in the data (Connelly, 2016; Korstjens & Moser, 2018; Pratt et al., 2020).

Ethical Concerns

Ethical concerns for this study are framed around four basic concepts: informed consent, beneficence, confidentiality and privacy, and vulnerable people and/or groups. It was paramount that each concept and all they entailed were treated with respect. I believe that attention to these ethical concerns helped to create a reliable, valid study.

Informed Consent

Prior to the interview phase of the study, each study participant was asked to sign an informed consent form, and their understanding of this consent was confirmed with them verbally at the outset of each interview. This informed consent letter outlined the study procedures, provided a brief description of assumed risks, and connoted confirmation that the participant was free to withdraw from participation at any time. I was careful to inform each participant of the steps taken to ensure their rights were protected throughout the study. Finally, participants received a Noncoercive Disclaimer, which served as confirmation that participation in the study was voluntary, and that no punitive actions would be taken against participants for failure or refusal to participate.

Beneficence

Every participant was a professional educator, either serving as a CTE teacher, CTE counselor, school administrator tasked with overseeing the CTE Department, or another department of their campus, a campus principal, or a district-level administrator. I did not bring and could not have brought any harm to the participants, as none of these participants were under

my direct or indirect supervision. All participants were over 18 years of age, and no participants displayed any evidence of mental impairment or a lack of capacity to participate in the study.

Confidentiality and Privacy

I guaranteed confidentiality and privacy to the study participants, both in writing and verbally. The participants were also assured that, in keeping with my responsibility to maintain confidentiality and privacy, their responses given in the interviews would not be shared with anyone else, and their interview responses and the transcripts of the interviews will be destroyed. Additionally, the transcription service removed all identifying information from the transcripts.

Vulnerable People and/or Groups

In this study, I utilized CTE teachers from high schools in the district, but none from the high school where I work as an assistant principal, because they would have been under my direct supervision. These teachers might have been less likely to give honest responses to the open-ended interview questions, and the data from which I would see themes emerge would be potentially skewed. This would, among other issues, call the findings of the study into question, rendering the research unreliable and invalid. It is for this reason that I selected participants from campuses where I did not serve as an administrator.

To mitigate vulnerability from CTE teachers and administrators, I explained to all potential study participants that their participation was strictly confidential. To that end, no identifying information of study participants was shared with any study participants.

Summary

This chapter explained the research methodology and the rationale behind the method. The overarching research questions were reviewed as a backdrop to the chapter. This

chapter provided background information about my role as researcher and the process for selecting study participants. Data-related procedures followed in this study were outlined in detail, from data collection to data analysis. I also outlined participant-related procedures, ensuring consent, privacy, and beneficence, and discussed interview question modifications. Finally, I delineated trustworthiness concerns for this study, including confirmability, credibility, dependability, transferability, and ethical concerns. The aim of the next chapter is to report the study results and to provide evidence that I followed the processes and procedures outlined in this chapter.

Chapter 4: Presentation of Findings

This chapter discloses the findings gleaned from the BI and IDI data, and notes and memos taken from my observations and reflections. Study findings speak to the overarching research questions of this study, all of which center around effective CTE program administration in WISD. Findings in this study are the result of several passes through the interview data and descriptive and thematic coding.

Additionally, I employed an interpretative phenomenological analysis (IPA) of codes and themes drawn from the data to describe the perspectives of CTE personnel. I used a constructivist approach to present participants' perspectives, each of whom had strong feelings about the research questions based on their individual experiences and beliefs, to give the data meaning (Alase, 2017; Charmaz & Thornberg, 2020; Saldana, 2011). In doing so, the rich descriptions of their experiences served as research data and informed the evolution of this study.

Due to this approach, research findings were also a product of an emergent process and design in this study, as unanticipated information, which I believe added to the richness of the data of this study, was uncovered, disclosed, and discussed with study participants. This led to newer, deeper questions and answers throughout the data gathering, as well as stronger, richer coding and theming throughout the data analysis process (Saldana, 2011).

Finally, study findings addressed the overarching research questions, providing insight into the perspectives of WISD CTE personnel regarding the effectiveness of CTE leadership in the district, and if that leadership was assumed or developed. By addressing these overarching research questions, this study served to give amplification to the experiences of study participants as they relate to the research questions and the study (Alase, 2017; Charmaz & Thornberg, 2020; Saldana, 2011).

Before I disclose study findings there is a brief review of the overarching research questions that guided this study. Following this review, I report and discuss the findings, replete with themes and subthemes drawn from participant responses to the interview questions, and how these responses connect to the overarching research questions. Study findings are followed by possible implications of the study findings. Finally, I provide a summary of the findings, a conclusion of this chapter, and an overview of what is to be covered in the next chapter.

Review of Overarching Research Questions

This study was based on three chief overarching research questions. The perspectives of CTE personnel and district leaders regarding these questions were offered based on their experiences and beliefs regarding the phenomenon being studied.

RQ1: What constitutes effective CTE program administration in WISD?

RQ2: What steps are taken by WISD to facilitate the effectiveness of CTE program administrators?

RQ3: Is effective CTE program administration in WISD assumed or developed?

As discussed in the previous chapter, BI and IDI respondents were asked open-ended questions to speak to these overarching research questions, but these two groups were not queried from the same interview script. It was my intention to take two different approaches to arrive at the same proverbial place, for, among other reasons, data triangulation purposes. As discussed in the previous chapter, these overarching questions were meant to address three main concerns regarding effective CTE program administration in WISD:

- 1. What does effective CTE program administration look like in WISD?
- 2. How is WISD working to provide effective CTE program administration?

3. Is effectiveness in this role in WISD a byproduct of intentionality on behalf of WISD leadership, or coincidence?

Presentation of Findings

The findings of this study are presented initially as themes and subthemes that relate to each of the three overarching research questions, separated by participant group (BI and IDI groups). Next, I provide evidence supporting the naming of these themes and subthemes, replete with respondent data percentages and specific quotes from respondents (separated by BI and IDI participant groups). Finally, I report common themes across BI and IDI data as they relate to the research questions.

Themes and Subthemes for RQ1

I coded the BI and IDI data for RQ1 several times, and themes and subthemes emerged from each participant group. There were clear distinctions between the two sets of data, but there were also commonalities in the feedback from the BI and IDI groups. These individual themes and subthemes, and the common themes are discussed in the next few sections.

As I analyzed the BI data in relation to RQ1, four main themes and several subthemes emerged.

BI Theme 1: Effective CTE PAs Are Familiar with CTE Programming and Program Needs

Subtheme 1: Knowing What Is Offered. Baseline interviewees remarked resoundingly about the importance of their CTE PA being aware of the classes offered and how these classes serve the futures of their students, as well as the certifications and licenses that students could earn by enrolling in and successfully completing CTE courses. Most BI respondents mentioned this subtheme, with one participant offering the following insight:

An effective administrator is one that knows that we [CTE teachers] are trying to set our students up for success in the real world, what we bring to the table for our students, and how many different certs [certifications] our kids can earn if they stay the course. These certs make them hirable the moment they walk across the stage [graduate high school], and these are good-paying jobs!

To clarify their points when asked RQ1, I asked the interviewees to offer additional feedback regarding what they meant by "knowing what is offered." I found that these respondents believed that part of knowing what is offered could include hiring administrators with a background in CTE coursework, CTE instruction, and/or a professional background in an industry for which CTE courses would prepare students. I think it was important to those in the CTE program to know their leadership is "one of them," or at the very least, familiar with what the department brings to bear in the lives of its students. To these points, several BI respondents spoke to the importance of the CTE PA having experience with the department prior to being given the role of leading the department. "First of all, effective leaders in this department come from this department," said one BI participant, an engineering teacher with seven years of teaching experience. This sentiment was shared by 64% of baseline interviewees, and one participant provided an explanation that summarized this subtheme:

The ideal CTE administrator is either from CTE or from industry, so they know the classes offered and all the ways these classes can help ensure these students are not shut out of these career tracks. They can earn all the licenses they want while in high school, often for free; once they leave here [graduate], these licenses and certifications literally cost thousands of dollars.

Subtheme 2: Knowing How to Access Funding. Understanding how CTE programs are funded, where these funds are sourced, and whereby these funds can be accessed was a sentiment echoed by several members of this group. One such BI participant, a CTE teacher that has served in the district for 12 years, described the need for expertise regarding content area funding, be it from federal, state, district, or campus sources:

I would say an effective CTE program administrator knows about the Perkins Grant, about the state funding sources that change from year to year, and about how to get control of and/or access the district and campus budget for CTE. There is money out there, but only administrators can get it for us [CTE teachers].

Understanding how CTE programs are funded, where these funds are sourced, and whereby these funds can be accessed was expressed by most members of this group. It was, in the opinions of the baseline interviewees, a paramount aspect of CTE PA efficacy. I believe the respondents see this as a critical need in CTE PAs because CTE teachers are not able to access these sources for their students, and absent these resources, their programs, and by extension, their students, would be negatively impacted.

Subtheme 3: Career Preparation. Finally, all BI participants mentioned facilitating career preparation as something that constitutes effective CTE program administration, citing what I refer to as Subcategory 1; CTE courses need to be tied to industry. In asking for more input about how career preparation constitutes effective CTE program administration, most study participants said that it is the root of their educational calling. They believed they were tasked with producing employable, marketable individuals, and they needed leadership that would enable them to carry out this task. This concept was iterated by one participant:

If our [CTE] administrators are not empowering us [CTE teachers] to offer our students courses that teach them industry standards, then what is the point? They will not have a shot at a successful entry into the working world if we don't prepare them.

To that end, many BI respondents specifically noted their belief that part of the purview of an effective CTE PA included helping to bolster student employability after graduation. Speaking to this note, a baseline interviewee, in her eighth year of service as a business information management systems teacher, pointedly remarked, "One goal of CTE programming is for kids to be employable." Echoing that point, a culinary arts teacher commented, "Our goal should be to ensure our students can join industry on a full-time basis immediately after walking the [graduation] stage." Finally, another BI participant, connecting the job of the CTE teacher and that of the CTE PA, noted, "We need competent administrators that see the big picture to help us achieve this goal [of producing employable students]. They [CTE PAs] have to see it as part of their job, not just part of our job." The importance of career preparation facilitation was unanimously intimated from baseline interviewees, so it was deemed an important point of emphasis regarding CTE PA efficacy by all BI participants.

BI Theme 2: Effective CTE PAs Recognize They Are Not CTE Content Area Experts

Subtheme 1: The Teacher Is the Expert in the Room. Responses received from CTE participants led me to believe that CTE teachers in WISD thought it was important to clarify who was the expert in the room. CTE PAs are often in positions of instructional leadership because of their background in education, while CTE teachers are in their positions because of their background in industry. Most BI respondents noted that effective CTE PAs recognize that CTE teachers, many of whom come from the industry that forms the basis of their instruction, are content area experts. To that point, one baseline interviewee encapsulated this subtheme with

that the teachers are the experts; they just need support, occasional help with their kids, and resources to help grow their programs." One BI study participant, a welding teacher with over 20 years of service to WISD, remarked plainly, "I have been welding since I was a kid and teaching it for decades. I need them to trust me. I've got this." Multiple BI participants voiced that seeing the CTE teacher as the expert was a matter of respect, and effective CTE PAs know to give respect where it is due - in this case, to the experts in the room.

Subtheme 2: Support. A broadly held belief of BI participants was that an effective CTE PA served as a source of support for CTE teachers. Support, in this case, may look differently to different BI respondents, but it was mentioned that support as a concept could mean many things, ranging from helping with student discipline, to assisting with gaining access to instructional resources, to serving as an advocate for the department to the rest of the staff, many of whom may see CTE instruction as inherently less important, due to its elective status. To the point that CTE teachers need administrative support to feel a sense of relevance amongst their peers, a culinary arts teacher stated, "I wish admin celebrated what we [CTE teachers] bring to the table. It's like we're the redheaded stepchild of subjects. Yeah, we're an elective, but admin should support us like they do the rest of the faculty, because we help kids achieve, too!" One baseline interviewee, a seasoned architecture and graphic design teacher, spoke eloquently about this concept with his heartfelt response: "The best CTE administrators positively impact programs by asking to help, rather than asking for help." An engineering teacher explained, "I could use help showcasing what my kids are doing to the school. They win competitions over the weekend, and no one knows. But let the football team win a game, and it's all over the school. Our kids compete and win, too!"

Many BI participants cited their belief that effective CTE PAs show support in a multitude of ways, because as CTE is not a monolithic concept, neither are CTE teachers. To this point, one BI participant, a criminal justice teacher, noted, "I may not need the type of support the child development teacher needs, and they might need what the shop teacher needs, but we all need support." Speaking specifically to the concept of support, one BI participant, an agricultural mechanics teacher, remarked on his need for administrative support with student discipline: "I don't write a lot of [disciplinary] referrals for kids. But if I do write a referral, I need admin to know that it's because that kid's [behavior is] putting the whole class at risk.

Don't send him right back!" A business teacher remarked that,

When I need money for the types of projects I want to do in my class, it's almost always a "no" [from administration]. How often do science teachers get told "no" around here? They always get to do cool stuff with their students. Where's the support for CTE?

BI Theme 3: Effective CTE PAs Address the Needs of CTE Students

Subtheme 1: SEL Needs of Students. Many of the BI participants mentioned that effective CTE PAs are concerned with and/or address the socioemotional learning (SEL) needs of CTE students. When asked if/how the campus CTE PA partnered with the CTE personnel (CTE teachers and CTE counselor) to ensure the SEL needs of the CTE students were being met, several respondents who were asked this follow-up question claimed to witness evidence of this partnership, and a few went on to clarify their position, citing that, to their knowledge, this was facilitated by the CTE counselor, not the CTE program administrator. One such participant stated the following:

With where so many of our students are since the pandemic, I think seeing to the SEL issues of our kids is now part of overall effectiveness. It's scary to see where so many of

our kiddos are these days emotionally. They're a mess, and it'll take a team effort to uplift them so they can learn. Sadly, that seems to fall on the career [CTE] counselor; our AP doesn't deal with that. But I think he should.

Subtheme 2: CTE Track, Completers, and Certification/License Holders. The interview data showed that many in this group believed that effective CTE administration includes having CTE students enter professional pathways, complete the CTE course track, and earn certifications and/or licenses as a measure of CTE programming success. Out of those who responded as such, most stated that they viewed student entrance into a professional pathway and/or having a student stay in their program at all levels of their high school career as evidence of a job well done by the CTE Department. An interviewee stated the following:

I know my administrator tells our department we are supposed to use CTE to allow kids to explore multiple professional options, but I feel a sense of pride when I have completers [students that stay in my program for their entire high school career], that leave my class and enter the profession I introduced them to. It's incredibly gratifying. When this happens, or when a kid earns a cert or a license, it makes the entire department, including the administrator, look like we're doing a good job.

A considerable number of baseline interviewees responded that certification data, or the information that denotes how many of their students earn an industry certification, served as an administration-driven measurable to inform, gauge, and/or drive CTE programming the district. As such, responsibility for the rise or fall in certification numbers may be credited to or blamed on the CTE PA. CTE personnel reported that they have been encouraged by their program administrators, CTE counselors, and department heads to push their students to strive for industry certifications. One interviewee remarked, "The CTE brass is always pushing industry

certs. They tell us that if we are not helping our kids get certifications, we are failing them. You would think their jobs depended on those numbers."

BI Theme 4: Effective CTE PAs Assume Responsibility for Program Growth

Subtheme 1: More Sections Equals More Success. BI data provides evidence that CTE personnel saw it as a function of the role of CTE PA to facilitate program growth. An abundance of BI participants mentioned this point. One respondent mentioned coming into a culinary arts program with four sections, 65 students, and one teacher and seeing that program grow to three teachers, nine sections, and almost 200 students. She remarked, "When I see my numbers increase from year to year, I view that as evidence of program growth and program success, and I know that type of growth and success is only possible with administrative support."

Data under this subtheme also provide evidence that CTE teachers see increased sections as proof that the work they do is respected and appreciated. An agricultural mechanics teacher spoke to this point, declaring, "He [my CTE PA] has worked with me and our career counselor to help this program grow. I am glad he sees the value in what I am teaching."

IDI Theme 1: Effective CTE PAs Know the CTE Landscape

Subtheme 1: Knowing What the Teachers Are Doing. All IDI respondents mentioned the breadth of the CTE content area as an inherent challenge for administrators. WISD has over 140 CTE course offerings and over 30 career pathways. Additionally, most IDI respondents mentioned that an effective CTE PA would have a solid grasp on what is being taught and what certifications and licenses are offered. They would keep abreast of TEA changes to the CTE landscape. An upper-level member of WISD leadership spoke to this theme:

An effective CTE administrator is up to date with the ever-changing legislation, what the TEA says we must be doing, and what the Texas Workforce Commission has to say

about how we prepare our students for entrance into the workforce. They would also understand the CTE curriculum, and what a viable CTE curriculum looks like, in reference to the ever-changing legislation and TEA guidelines. CTE covers a huge amount of territory; so, an effective CTE administrator is always learning, so they can always lead effectively. Finally, I would say an effective CTE administrator would connect with teachers across the disciplines within the content area, to stay plugged in with them, so they will be cued in on what they are needing, struggling with, and to help them celebrate their triumphs.

IDI Theme 2: Effective CTE PAs Are CCMR Champions

Subtheme 1: CCMR Points Are Critical to CTE Program Success. The IDI data revealed that most IDI respondents stated a correlation between CCMR and end of course (EOC) exams. Many IDI participants see improving upon CCMR points as tantamount to improved State of Texas Assessments of Academic Readiness (STAAR) scores, which serves as one of the measurables of program success from STAAR-tested subjects, like the four core content areas. Additionally, manifold IDI respondents believe that facilitating CCMR point improvement each year is a manifest function of CTE leadership. As one current CTE Department head added, "CCMR is CTE's EOC [end-of-course, like STAAR] exam. If we are not hitting those points, and gaining more points each year, we are doing our CTE students, our campus, and our entire school community a huge disservice." Another IDI participant, a current CTE PA, offered, "We are responsible for getting CCMR points for our campus, period. If we are not doing that, we are failing in our leadership capacity. It's our scoreboard."

Subtheme 2: CTE Carries the CCMR Load for Non-College-Bound (NCB)

Students. A recurring point of consideration echoed by several IDI participants was the effect of

CTE coursework and CCMR emphasis in the lives of WISD NCB students. WISD has several Title I campuses and one of the many concerns of Title I campuses is addressing the needs of the NCB student population, which is typically a higher percentage of the student population than is the case in campuses that are not Title I. One IDI participant, a current WISD CTE counselor, added this spirited explanation of this subtheme:

We're not just Title I here; my campus is over 70% low SES [socioeconomic status]. Think of the transformative power of CTE in the lives of our NCB students! It's our duty to emphasize it! We need to push CCMR through CTE because it is a great way for our [NCB] students to find success, both in high school and in their professional future. Imagine what getting that kid across the [graduation] stage with multiple certifications and licenses does for the kid who isn't heading to college but needs to be able to provide for himself. We are doing that work; getting those kids to a point where they can break generational curses and cycles and land good-paying, highly skilled jobs right out of high school. Math isn't doing that for our NCB students. Social studies can't make that happen for them, either. I welcome that challenge.

IDI Theme 3: Effective CTE PAs Are Resourceful

Subtheme 1: Find the Money. Scarcity of resources was mentioned as a major challenge of CTE administration, and many IDI participants cited the importance of keeping abreast of funding sources that are readily available to CTE departments, whether they be via federal, state, or local funding sources. A current campus principal noted that CTE PAs must, "Know where funds are available and how to access them, because running quality CTE programs is an expensive undertaking."

Subtheme 2: I Know a Guy. Several IDI participants mentioned that an effective CTE PA would actively forge relationships with community stakeholders to ensure CTE programs have what they need to be successful. These same IDI respondents noted that, while CTE PAs are tasked with taking these steps, PAs from other content areas may not be forced to do this to find adequate training, funding, and/or opportunities for the students of that department. To this point, one IDI participant noted that "the AP in charge of social studies does not need to go outside of the campus to find social scientists to help the students they serve find success in history, geography, or economics. We [CTE PAs] do."

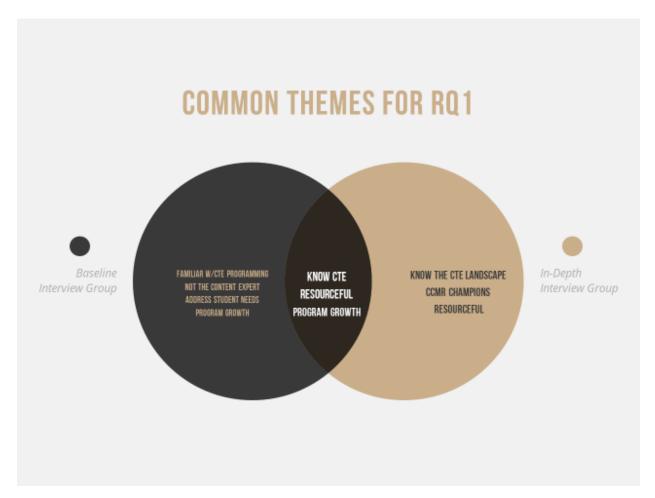
Another point evidenced by the data in keeping with this subtheme is the mutual exclusivity of needs and funding. Many IDI participants mentioned that technology needs to change each year, but funding for CTE departments may not. As this disparate dynamic grows, IDI participants note, so does the need for CTE PAs to seek alternative sources of funding, primarily from the larger school community. One current CTE PA shared, "As technology changes, so to do the needs of your CTE classrooms; but access to funds may not [match] those changing funding needs." Another CTE PA disclosed, "What CTE classes need to adequately prepare our students for their next step increases each year; but our budgets don't. That's where we [CTE PAs] come in."

Common Themes Across Participant Groups for RQ1

Common themes across BI and IDI data for RQ1 included a similar Theme 1 between both participant groups, and there were similarities between one of the subthemes in BI Theme 1 and IDI Theme 3. Additionally, there was overlap across both participant groups between the subtheme of BI Theme 4 and one of the subthemes in IDI Theme 2. These common themes and subthemes are depicted in Figure 1.

Figure 1

Common Themes for RQ1



Themes and Subthemes for RQ2

I coded the BI and IDI data for RQ2 several times, and themes and subthemes emerged from each participant group. There were clear distinctions between the two sets of data, but there were also commonalities in the feedback from the BI and IDI groups. These individual themes, subthemes, and common themes are discussed in the next few sections.

BI Theme 1: Supportive Curriculum and Instruction (C&I) Department

I believe WISD is fortunate to have such a robust, supportive C&I Department. Baseline interviewees lauded the efforts of the WISD C&I Department, the group responsible for all

district-offered trainings and workshops for professional staff. Data codes regarding this sentiment showed that most BI respondents mentioned that the district facilitates the effectiveness of CTE PAs through the C&I Department. It is worth mentioning that this department, which plans, implements, and seeks feedback following every training offered in the district to professional staff, is the only department with that distinction, so this theme would likely emerge from both participant groups. Feedback from BI participants regarding this theme included this insight offered from a veteran CTE teacher:

We [WISD] have a great C&I Department, and they make sure all teachers and administrators receive training before the school year kicks off, throughout the school year, and even in the early summer. I would assume they take care of training administrators based on the areas they supervise, but I don't know for sure. Also, some of their training courses are mandatory, but a lot of them are optional, and that may be the source of any disconnect. I would say they are doing their part to at least offer guidance; if people choose to skip out on these opportunities for growth, that's on them.

Another BI respondent offered this feedback, "All district-led 'facilitation' for this would run through [the] C&I [department]. It's what they do. They offer training all year long. They are all former teachers, former APs, and former building principals; they know their stuff." This department works hard to identify and fill training and development needs for the faculty and staff.

Subtheme 1: Perceived Lack of CTE Background in the C&I Department. Most BI respondents addressed their perception of the C&I Department as lacking members with CTE teaching or CTE administrative experience. It is important to mention this feedback was not a result of a question about the C&I Department, nor was it in response to a follow-up question

meant as my attempt to elicit feedback about the makeup of this group of district leaders. The only question asked was RQ2, and feedback offered from BI participants included this comment or similar: "C&I designs and carries out all the training for all teachers and admin in the district. But if none of them have a CTE background, how do they know how to train CTE staff or admin?"

Subtheme 2: Perceived Lack of CTE-Specific Training Offered by the C&I

Department. Several baseline interviewees thought to add that, while they, or at least most BI respondents, believed this department was responsible for facilitating the effectiveness of CTE PAs, they did not believe the training offered to CTE PAs was content-specific, for whatever reason. Resonating with this subtheme was a BI participant, a fifth-year FCS (family and consumer sciences) teacher, who explained her belief that there may not be CTE content-specific training offered by the C&I Department, citing, "We [WISD staff] run all staff trainings through our Curriculum and Instruction Department. I'm sure they offer general leadership training for APs. I don't know if there's any training specifically for CTE." This sentiment served as an almost unanimously recurring subtheme, with another baseline interviewee adding, "The [C&I] trainings always feel like general, surface-level instructional insight . . . They never get into the nitty-gritty of CTE instruction." Another BI group member took a more direct, almost accusatory tone with their response to RQ2, claiming, "I don't think any of them have taught a CTE class before. If they won't talk about CTE instruction to teachers, I doubt they're talking about being admin for CTE when they do their admin trainings."

It is important to note that BI data also provided a defense of the perceived lack of CTE-specific training offered by the WISD C&I Department. One such bulwark of the scope of responsibility of this department was given by a communications teacher, who added, "It's not

just CTE; they [C&I Department] aren't talking about any specific content areas in any of these trainings, regardless of content area; just compliance, new rules, policies, and procedures, do's and don'ts, stuff like that."

Another justification for this subtheme was offered by a baseline interviewee, who offered that it may not be a function of the role of the C&I Department to provide content-specific training. This participant, a FSC teacher in his 11th-year of service in the district, stated, "They are probably not speaking to CTE needs directly, but to be fair, they're [the WISD C&I Department] probably not coaching up ELA admin on how to lead English departments either."

BI Theme 2: Supportive Executive Director of CTE

Baseline interviewees also praised the efforts of the district's executive director of CTE. When asked RQ2, there was almost total consensus among baseline interviewees, as most responded that the presence of this district leader was tantamount to a district action step to facilitate effective campus leadership of CTE departments across the district. The same number of respondents that mentioned the job this leader was doing also mentioned how massive of an undertaking this job was. Data coded regarding this sentiment showed that almost all BI respondents mentioned the scope of the role of executive director of CTE was daunting, to say the least. To this point, one baseline interviewee added that "the biggest action step is [the WISD executive director of CTE]. She has been . . . in CTE in multiple districts and served at multiple levels of leadership. She's an asset and an advocate, and she is great at her job!" The leadership of this professional was further acclaimed by another BI respondent, who stated plainly, "She's great! I don't know where this [CTE] department would be without her."

One of the more poignant data pieces supporting RQ2, BI Theme 2, came from a principles of education teacher, who extolled WISD and hailed the supportiveness of the leader of the CTE Department with this quote:

Without question, the best decision our district leadership made was putting [the executive director of CTE] in charge, because she does the job of five people by herself. She gets the staffing piece, balancing classes, funding, offering training and PD [professional development] opportunities for teachers who are from industry, so they're new to teaching, all of that. On any high school campus in this district, we're [the CTE Department] the largest department, with the most diverse scope of instruction, and she helps us all, seemingly all by herself. I honestly don't know how she does it. She's just awesome!

Subtheme 1: Executive Director of CTE Is Spread Too Thin. Many baseline interviewees shared their belief that, while the executive director of CTE was doing great work, this leader is asked to do too much without adequate assistance. Additionally, several respondents also mentioned that this leader, while effective, is also facing a disparity in equity, regarding how the district infrastructure allows for assistance with this monumental task, by comparison to other content areas. One baseline interviewee expressed that they believed there was a need for growth at the district leadership level of CTE in WISD, announcing, "I think we need more CTE positions in the school district. I think in order to be more effective we need to have more positions open so that we can do more." Echoing this opinion about how the district could conceivably provide better service to its CTE students if there were additional support for the executive director of CTE, another BI respondent added, "We're a huge department. We

could do a much better job for these kids if we had four or five other positions opened that would do the work of supporting CTE across the district."

Subtheme 2: Better Roads Lie Ahead. BI data provided evidence that many in this participant group believe that progress in the scope of influence and responsibility assumed by the executive director of CTE, is afoot. An FCS teacher expressed her opinion on the matter: "I feel better about the direction we're headed with CTE administration, both at the district - and campus-levels, because she [the executive director of CTE] has some help now. It's going to help everybody, especially our students."

Many BI participants noted this progress is in the form of an assistant director of CTE, a district leadership position added to the CTE Department in April of 2022. When the data gathering portion of this study ensued, this leader had been on the job for less than two months. With that stated, several BI participants cited this new addition and hoped this new leader would add much to the CTE Department.

IDI Theme 1: Support

According to IDI data, all participants in this group believed that the district offers support to facilitate the effectiveness of CTE program administrators. Support may come from the executive director of CTE, the assistant director of CTE, the C&I Department, or elsewhere within the district, but all IDI participants believed support has been offered by the district. Additionally, support as a concept could look different to different IDI respondents, as the type of support needed could vary much more than the sources of support for the CTE Department. Variance notwithstanding, while there was total consensus on this theme, there was a bit of difference noted in the subthemes that emerged from this research question.

Subtheme 1: Support From the C&I Department. As was the case with BI respondents, IDI participants also lauded the efforts of the C&I Department. All but one IDI respondent commented that they believed support from this department serves as a means by which the district facilitates administrative effectiveness in CTE at the campus-level. Respondents mentioned that this department works to train all professional staff members, but their work to train and develop administrators is some of their best work. One IDI participant, who served as a district leader in WISD, remarked, "Any growth towards effectiveness of all administrators in starts with the leadership of curriculum and instruction. Growing administrators leads to growing teachers, and this group focuses on the big picture better than most in this district." Another IDI respondent added this praise for the C&I Department: "The training, professional development, and support they offer our campus leaders through the administrative training initiative pays huge dividends in campuses across this district." To that end, this was a nearly unanimous sentiment, hence it serves as a compelling subtheme. It is important to note that IDI participants, all of whom served as campus or district leaders in WISD, have a different take on the effectiveness of the C&I Department regarding its effectiveness in supporting the specific needs of CTE PAs; this is addressed in more detail in the final chapter.

Subtheme 2: Support from the Executive Director of CTE. Most IDI participants reported the support received from the WISD executive director of CTE facilitated CTE PA effectiveness. Many members of this participant group spoke from the heart about the service this leader provided. One IDI participant, a current CTE PA, remarked, "It all starts with [the executive director of CTE]. She is the glue that holds this department together."

It was also mentioned by multiple IDI participants that part of the support offered by the executive director was informal, but powerfully impactful, nonetheless. One of the district's area superintendents described one such source of additional administrative support from this leader:

One of the action items I am most proud of [the WISD executive director of CTE] for championing is the CCMR focus group. It's one of the largest focus groups that we have in the district, and we just completed our fourth year. I think some of the most powerful conversations allow us to learn from each other and create opportunities for our [CTE] students and our [CTE] teachers. When you have that type of work that is job-embedded professional development through intense collaboration, it has some of the greatest meaning. And certainly, we've seen some of the greatest gains we've ever seen.

While this is but one quote, it was a recurring sentiment from both BI and IDI participants.

Additionally, the source of this feedback must be considered. This insight from the top-level of district leadership provided powerful data supporting RQ2.

IDI Theme 2: Effective CTE PAs Must Be Self-Motivated

After several passes through the IDI data, one recurring theme that addressed RQ2 was that CTE PA effectiveness was facilitated by hiring intrinsically motivated professionals to serve in that role. While no subthemes emerged from this finding, a considerable number of IDI participants remarked about the importance of CTE PAs taking ownership of their professional growth and development. A CTE PA that served as an IDI participant raised this opinion, stating plainly that he believed it was incumbent upon the leader to seek ways to get better at their job. He added, "I know that if you want more training, there's ways to get that training, but it would require seeking out training outside of the district and securing the PD for yourself."

One of the CTE counselors that participated in this study as an in-depth interviewee offered suggestions as to how, absent any CTE-specific growth and development opportunities provided by the district, a CTE PA might secure assistance in facilitating their effectiveness: "For CTE-specific administrative training, the best way to get that is through the Region 11 Service Center. There's also an annual CTE conference offered in Texas . . . one would have to seek that out to attend; it isn't offered by the district."

Echoing that point, the executive director of CTE offered this regarding this theme: "Our APs are go-getters, so they do what they need to do to find more training. We don't offer it, but it is available, if they only ask; and I am happy to help pay for it."

Additional insight imparted in support of this theme was provided by an area superintendent, who added that "you can find those opportunities through service centers, through national and state organizations. But it shouldn't be something that you're doing to fulfill a professional development requirement; as a program director you are always digging deeper. You're looking for more."

Feedback from IDI data provides evidence that, absent seeking training from outside sources, CTE leaders at the campus-level benefitted from collaboration between CTE PAs, CTE counselors, and CTE department heads at the campus-level and across campuses within the district. This, per the IDI data, is how these leaders worked to ensure their collective effectiveness. To this point, the executive director of CTE went on to state, "I wish I had an AP training program for CTE leadership, but there simply isn't one." In that vein, in-district training is tantamount to whatever collaboration is established by those in CTE leadership roles at the campus-level.

Finally, multiple campus and district leaders that served as IDI participants spoke about the need for these leaders to take advantage of what is offered by the district, but to also display the requisite initiative to find opportunities for CTE-centered leadership growth.

Common Themes for RQ2

There was one common theme that emerged from the BI and IDI data. Both participant groups answered RQ2 using the same main term: support. Additionally, both participant groups responded that support would come from the same sources within the district—the C&I Department, and the executive director of CTE. These data are outlined in Figure 2.

Figure 2

Common Themes for RQ2



Themes and Subthemes for RQ3

I coded the BI and IDI data for RQ3 several times, and while themes emerged from each participant group, neither the BI nor IDI data produced subthemes. There was one clear distinction between the two sets of data, but commonalities in the feedback from the BI and IDI groups were evident. These individual themes and the common themes are discussed in the next few sections. Because of the nature of RQ3, answers to this question, most of which incorporated part of the question in the answer, seemed to serve as codes and themes. To that end, data from this research question were the simplest to break down, code, and theme, as participants typically answered the question, regardless of how elaborate the response, with a word from the question (as the question offered a binary choice, of sorts). As I analyzed the BI data, three themes emerged that addressed RQ3.

BI Theme 1: Assumed

The broadly held belief of the baseline interviewees was that effective CTE program administration in the district was assumed. Almost all participants responded as such, so this served as an important piece of data. One participant stated plainly, "Oh yeah, it's definitely assumed. In an ideal world, it would be developed, but it's definitely assumed." Another BI participant, a CTE teacher with more than 15 years of experience, offered this answer to questions related to RQ3: "I think that's easily answerable. It's an assumption. And it's a bad assumption."

Another participant remarked, "Not only is it 100% assumed, but I don't know that we have the bandwidth to develop it. How would we even go about doing that?" Echoing a similar sentiment regarding the capability of the district to develop CTE administrators, another veteran CTE teacher remarked, "They're [WISD is] assuming that they're [CTE PAs] going to be

effective. I definitely don't see any developing of CTE admins, but to be fair, I don't see any developing of Science admins or LOTE [languages other than English] admins, either." Finally, one respondent said, "Okay, it's assumed, but let me say that the CTE Department is doing a great job; the leadership is just spread too thin. One person can't be expected to develop these leaders for a district this size."

BI Theme 2: Developing

Several BI participants responded with this sentiment, and it was enough of a response to report it as theme. When asked to expand on their answers, those that responded with "developing" cited that WISD was, from their perspective, moving toward developed, but not there yet. One BI participant responded to RQ3 with the following retort: "I can tell they [WISD] are trying to develop these leaders, but we are a long way from that goal, if it is one." Another participant, defending the efforts of WISD in the pursuit of developing CTE PAs, responded, "We are closer to assumed than developed, but moving in the right direction [toward developed]." Finally, a seasoned CTE teacher offered powerful insight to support this theme:

I know you want me to pick assumed or developed, but I think it's developing. I have been here long enough to witness the growth we've experienced as a content area, and while I know we are not where I think we need to be to do the best job possible for our students, we are light years ahead of where we were when I started here. It's not even close. We're moving in the right direction faster than most districts our size, and I am proud of the progress.

BI Theme 3: Developed

This theme received a couple of mentions from participants. This is an important theme, chiefly because the very core of this study lay in whether CTE personnel believed effective,

campus-level CTE leadership is assumed or developed in the district. One BI respondent that responded that effective, campus-level CTE program administration has been developed gave their explanations for their answer: "I would have to say it is developed, because I have seen the growth in that position on my campus over the last few years."

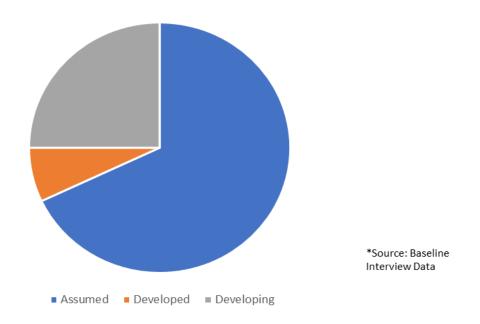
Another BI participant added that they tend to believe WISD is doing things right, and in doing so, they would develop these leaders. She went on to add, "I would say it is developed, mostly because I want to believe we as a district are being intentional about who we place in those roles."

Finally, one BI respondent assumed it was developed, citing the smoothness with which the CTE department on his campus operated. He went on to state, "You can't just take a random person with a principal cert [certification] and throw them into a CTE admin role and expect them to be effective. We've got to be doing some sort of training."

The figure below depicts the findings represented by BI data regarding RQ3.

Figure 3

BI Theme 3: Is Effective CTE Program Administration Assumed or Developed?



IDI Theme 1: Assumed

I found that this theme was one of the clearest themes that emerged from this study. Almost all IDI participants responded that they believed the district leadership assumed effective CTE program administration. An IDI participant remarked plainly, "It is assumed, because it pretty much has to be." In keeping with the point that it must be this way, I believe it was the prevailing sentiment of IDI respondents that it would stand to reason that this sort of assumption would take place, because this is simply how schools must operate. Assumptions are part of the hiring process in schools. One IDI study participant remarked, "Of course, it's assumed. Campus principals make the same assumptions with most hires. It is up to the campus leader to ensure development takes place on the job, but at the outset, it is always assumed."

A campus principal that responded that this concept is assumed noted, "I don't think [WISD] provides comprehensive training in that area. I can look back at my own professional development record . . . or my administrators, and I can guarantee it's going to be very little, if any at all . . . specifically geared towards CTE." Finally, another IDI participant, a district leader, responded, "Right now there isn't anything developed, but I would love to help develop something."

IDI Theme 2: Developed

Conversely, only a few respondents reported that they believed WISD develops effective CTE program administrators. Each of these respondents were district leaders, with one such leader responding with the following statement:

It would have to be developed, like any other leader, but it probably looks different in CTE than it would in another content area, mostly because of the breadth of CTE programming in this district. Our CTE programs cover a huge expanse of disciplines, and

we offer a multitude of licenses and certifications for our students. It is a process in CTE, but I believe, and the data would prove that we have a solid foundation developing our leaders in this content area.

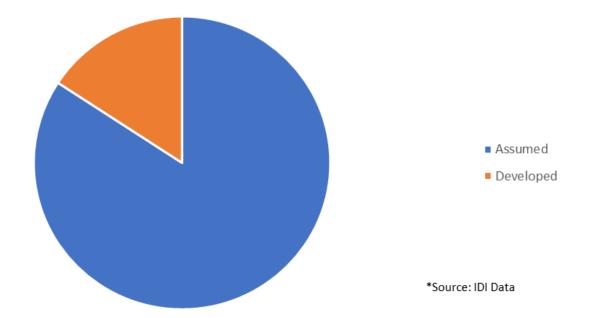
Another district leader stated that this phenomenon was developed in the district and mentioned a litany of challenges that the district faced to develop CTE program administration. He noted, "It's an ongoing process, but it is developed. The challenge for us is everything changes with each legislative session…I can say this with certainty because our effectiveness is measured through data."

Finally, another district leader added his defense of his position that effective CTE program administration is developed in the district. "It is developed. We do our best to provide opportunities for professional growth and development for all staff. It may not be a perfect system, but we are striving to improve our development systems and processes each year."

The figure below depicts the findings represented by IDI data regarding RQ3.

Figure 4

IDI Theme 3: Is Effective CTE Program Administration Assumed or Developed?



Overarching Themes

When analyzing all data from both sets of interviews, I realized there were three overarching themes that resonated across the data. Even though many of the questions in the two sets of interviews differed, the data overlapped. This overlap serves as the foundation of the three overarching themes:

- The role of CTE PA plays a critical role in determining the overall success of CTE programs at the campus-level.
- 2. Effective CTE program administration hinges on two factors—partnership and support.
- 3. The perception of CTE personnel and district leadership is that effective CTE program administration is more assumed than developed.

Overarching Theme 1

While every question in the interview protocol centered around CTE programming, every theme that emerged from the data centered around CTE PAs. I address the implications of this data, any conclusions drawn from this theme, and recommendations for future research about this theme in the next chapter.

Overarching Theme 2

A major common refrain across BI and IDI data was that effectiveness, as it relates to CTE program administration, is a byproduct of partnership and support. Participants noted the need for intentional, synergistic partnerships within the campus - and district-levels of the CTE Department and the larger school community, and this same level of synergy, regarding support from campus- and district-levels, as well as the larger school community, is required to maintain effective program leadership within the CTE Department.

Overarching Theme 3

Most baseline interviewees and an even higher concentration of IDI respondents cited their belief that effective CTE program administration is assumed. Conversely, very few baseline and IDI respondents believed effective CTE program administration is developed. The implications of these data, any conclusions drawn from this theme, and recommendations for future research regarding this theme are unpacked in the next chapter.

Conclusions

Several key conclusions may be drawn from the findings based on the overarching research questions. Synthesizing BI and IDI data for RQ1, the findings provided clear evidence that CTE personnel saw their CTE PAs as effective, even if they were limited in their knowledge of CTE coursework, chiefly because these leaders recognized their limitations, utilized their internal and external resources to provide for CTE students and teachers, and championed CTE program growth. To that end, this study revealed that the district has effective CTE personnel.

Looking at BI and IDI data for RQ2, study participants believed this effectiveness was due in part to the district's expansive C&I Department, which served as a stopgap for general leadership deficits, but did not specifically address CTE leadership. In addition, an extremely supportive executive director of CTE, while pulled in multiple directions simultaneously, worked to be the guarantor of effective campus-level CTE leadership across the district.

I believe RQ3 data from the BI and IDI groups was clear; the opinion of CTE personnel and many district leaders was that, despite the combined best efforts of the C&I Department and the executive director of CTE, effective CTE program administration is more assumed than developed. I believe it is important to note that a few CTE personnel members believed that the

district is developing effective CTE PAs, which is to say that the work in progress is moving in a positive direction.

Conclusions and the Study Context

These findings paint a vivid picture of the study setting where, according to BI and IDI respondents, CTE is viewed as an integral cog in educating the whole child, and integral enough that the district has built a campus specifically for CTE coursework, where students that desire a CTE track can attend full-time for two years, graduating from the CTE academy as they would from a comprehensive high school. Several respondents mentioned the district's focus on offering a broader, more exhaustive array of CTE programming options as evidence of its commitment to providing this avenue of instruction to its students. One BI participant stated, "I am proud to work in a district that sees the importance of CTE and is so committed that it built an actual CTE campus. They really put their money where their mouth is."

Additionally, the new addition of an assistant CTE director position was viewed as evidence that the district is committed to CTE program growth and development and providing CTE teacher, student, and PA support throughout the district. To that point, one IDI participant noted, "It's awesome that we now have help for [the Executive Director of CTE]! Just think of what this will do for our CTE programs at the campus-level, and how transformational this addition can be for our students." It has yet to be determined what this new addition will yield, but I believe it could serve as fodder for future study in this context. To that end, it may be beneficial to study the benefits, drawbacks, and overall changes in the CTE dynamic in the district, once there has been ample time to study the impact this personnel addition has on CTE programming.

The Status of CTE Administration in WISD

The findings showed evidence that there is ample room for progress regarding campus-level CTE program administration. As one IDI respondent remarked about current campus-level CTE program administration, "We've got a ways to go, but I believe we are developing, moving in the right direction." Building off the prevailing sentiments unveiled in this study, that effective CTE program administration is assumed, but that CTE PAs are effective, there is fertile ground in which the seeds of change may be planted. Perhaps the executive director and assistant director of CTE can work in concert to provide intensive, content-specific training and development opportunities for CTE PAs across the district. In doing so, future studies may provide evidence that effective CTE program administration is developed in the district.

Distinctions in the Findings for RQ3

The crux of this study is found in RQ3. As such, I need to explain the distinctions in the findings for this overarching research question. Most participants, regardless of whether they were in the BI or IDI group, remarked that they believed effective, campus-level CTE program administration is assumed in the district. Conversely, three BI participants and three IDI participants claimed it is developed. I believe this is best explained by examining their responses.

For the BI group, one respondent explained that because it is working smoothly, it must be by design, meaning the smoothness with which the CTE PAs are performing their tasks served as evidence of their development. Another BI respondent explained that since they have witnessed progress in CTE program administration over the years, it must be a byproduct of WISD development. Finally, another BI respondent explained that they wanted to believe the district was being intentional about developing these leaders, because the roles were so

important. Ironically, what this feedback proved is that BI participants were *assuming* it was developed.

For the IDI group, all respondents that remarked that effective, campus-level CTE program administration is developed mentioned that this development was an ongoing process. To that end, this process may not be fully developed in all campus contexts, but, as a district, all our CTE PAs are actively engaged in the process. What this says to me is that our district leaders, whose job it is to set up systems and processes, believe leadership development must be systemic.

Why It Matters

These distinctions matter for the future of CTE leadership, both at the district- and campus-levels, because these assumptions must be limited, if not eliminated, regarding effective leadership. While the findings provided evidence that these assumptions did not yield negative results, it should not be the status quo regarding leadership training and development going forward. Assuming effective leadership could have yielded negative results for this study, and continued assumption could yield negative results for WISD in the future. Instead, purposeful, intentional systems and processes must be set in place to develop the type of leaders the district needs overseeing their campus-level CTE programs.

Summary

Study participants were gracious with their time and forthright with their opinions, and this benefitted this study by providing clear, straightforward insights into the phenomenon being studied. The themes, subthemes, and all study findings provided clear evidence that the role of the CTE PA plays a critical role in determining the overall success of CTE programs at the

campus-level, and the perception of CTE personnel and district leadership is that effective CTE program administration is more assumed than developed.

In the next chapter, implications of these findings are addressed, both for the district in general and the CTE program. Additionally, I discuss recommendations for future study, for my professional context and beyond, based on the findings and conclusions from this research.

Chapter 5: Discussion, Conclusions, and Recommendations

The final chapter of this study is presented in four sections. In the first section, I present a general summary of the study, including a review of the overarching research questions. The second section will summarize the findings and provide any conclusions in relation to the literature. This second section also includes my personal reflections regarding these research questions, as I am not only the researcher, but also a member of the group and the professional context being researched. Thirdly, I will discuss the implications of this study's findings. In doing so, I unpack four implications specific to the context being researched. Finally, recommendations for future research are discussed, with a focus on utilizing these potential studies to uplift, expand, and enhance CTE program administration within my district, and perhaps beyond, going forward.

Summary of the Study

The purpose of this qualitative case study was to examine the quality and effectiveness of existing CTE program administration in a public school district in North Texas from the perspectives of its current CTE personnel. Furthermore, this study examined whether effective CTE program administration was a byproduct of purposeful action taken by campus and district leadership in the development of CTE PAs.

A goal of the study was to develop a theoretical framework for CTE PA effectiveness, training, and development by answering three key questions:

RQ1: What constitutes effective CTE program administration in WISD?

RQ2: What steps are taken by WISD to facilitate the effectiveness of CTE program administrators?

RQ3: Is effective CTE program administration in WISD assumed or developed?

The rationale for these questions was to determine the effectiveness of the partnership between the CTE administrator and the CTE personnel, as well as to describe the work undertaken at the district-level to establish, develop, and advance effective leadership of campusbased CTE programs. Effectiveness is characterized by three concepts—administrative support of CTE participants (Goins, 2016; Passarella, 2018; Saeger, 2017), administrative ownership of the growth of the CTE program (Cox et al., 2015; Goins, 2016), and the perceived value of the program to its participants and community stakeholders (Cox et al., 2015; Hodes & Kelley, 2017; Malin & Hackmann, 2017).

This study utilized baseline interviews (BIs) of campus-level CTE personnel, including CTE teachers, CTE counselors, and campus administrators to gain their insight into the phenomenon being studied. Additionally, I conducted in-depth interviews (IDIs) with district leadership, including campus principals from four comprehensive high schools in the district, CTE PAs, the district's executive director and assistant director of CTE, campus-level CTE Department heads, a few veteran CTE teachers, and a current area superintendent (and former CTE teacher, CTE Department head, and campus principal in the district). The purpose of the IDIs was to gain insight into the phenomenon being studied from the perspective of those who make decisions about the direction of CTE programming and the recruitment, retention, and assignment of CTE PAs. Gaining insight from both sets of interviewees was needed to create a fuller picture of CTE programming and its leadership.

Discussion of Findings and Conclusions

The findings of these interviews were clear; I drew six conclusions from these findings.

Three of these conclusions are overarching in scope, speaking to the totality of the study, while

three of the conclusions coincide specifically with the research questions. All conclusions are discussed as they relate to both the findings and the literature review.

Overarching Conclusion 1: CTE PAs Are Potentially Impactful

The data provided from both sets of interviewees supply evidence that the CTE PA could have a positive impact on CTE programming at the campus-level. A statement one BI respondent made, which served as a common refrain throughout this study, was the following: "I know I can always go to my AP [CTE PA], and he'll work it out. He gets me. He gets us [CTE teachers]." This level of trust enables the CTE to have a major impact on the CTE program and all its participants. In the literature review, I shared research that reports the importance of CTE programming and the importance of its efficacy as it relates to CTE program administration (Broderson et al., 2016; Clark & Cole, 2015; Cox et al., 2015; Hodes & Kelley, 2017; Malin & Hackmann, 2017; Riley, 2013; Yost et al., 2019; Zirkle & Jeffrey, 2017). As such, I find this serves as further evidence that this phenomenon is warranted and warrants further study. Furthermore, assuming the impactful nature of effective CTE program administration is unquestioned by extant research, per the data provided in this study, one conclusion that can be drawn is that it stands to reason that more intentionality into the development of these campus leaders could yield more positive results for the programs they lead.

Another conclusion I drew from this data is that there is evidence of effective campusand district-level CTE leadership in this district. That stated, the data also provided evidence that the prevailing sentiment of participants was that more can be done at the district-level to develop the campus-level CTE leaders, which could, by extension, develop the campus-level CTE programs. To that end, I concluded from the data that it is possible that the recent addition of the position of assistant director of CTE is a step towards providing more support, guidance, and development for CTE PAs. As many scholars have posited, sharing responsibilities is a hallmark of effective leadership (Nicholas & Fleck, 2019; Ward & Graham-Brown, 2018). This addition allows for more sharing of the myriad obligations of leading a CTE department at the district-level, and, as the literature review attests, adding an additional layer of support at the leadership-level provides an opportunity to share in in the duties of supporting the campus-level CTE programs (Backor & Gordon, 2015; Clark & Cole, 2015; Conrad & Watkins, 2021; Yost et al., 2019). In addition to the scholarly literature bolstering this conclusion, this conclusion is supported by this study's data—100% of IDI respondents noted the executive director of CTE is overextended, or "spread too thin."

Overarching Conclusion 2: CTE PAs Benefit from Embedded Support

Another overarching conclusion that may be drawn from the data is the CTE PAs across the district are utilizing embedded support, both at the district- and campus-levels, to facilitate leading these departments.

District-Level Support. BI and IDI study participants alike praised the efforts of the executive director of CTE, her newly hired assistant director, and the C&I Department for all they brought to bear in the pursuit of providing excellent administrative support for CTE PAs. While study respondents may have commented on idiosyncrasies from each of these major players, all feedback regarding these professionals and the yeoman's work they did to help leaders lead more effectively was very positive.

This finding concurred with some of the research reviewed previously—that synergy in leadership relationships is a source of support (Ward & Graham-Brown, 2018; Yost et al., 2019).

If synergy is embedded in the relationship district and campus leaders share, this bolsters the work the campuses do across the district. To that point, synergy between the CTE PA and district leadership, such as the entities listed in the previous paragraph, serving as an embedded support, is critical to CTE program growth and development (Clark & Cole, 2015; Fleck et al., 2019; Ward & Graham-Brown, 2018; Yost et al., 2019; Zirkle & Jeffrey, 2017).

A sentiment and concept echoed throughout the interview was this spirit of collaboration and the interconnectedness of CTE stakeholders at the district- and campus-levels; this was a common refrain from participants. Several participants expressed that the exponential growth of the CTE program over the years was evidence that the district championed collaboration and synergistic leadership at all levels. Study participants noted and often harped on this synergy as part of what they believed constituted a successful formula in CTE programming, and, more specifically, absent this synergy, the success the district has enjoyed would not be possible. As one IDI participant remarked, "With all the impediments to success staring us in the face, our district and campus admins have to be on the same page. We succeed because we work together." Another IDI participant stated, "The teamwork is real here. If we weren't all rowing in the same direction, we wouldn't be where we are today."

Zealous CTE Department Heads. Another embedded support CTE PAs have benefitted from is a top-notch class of CTE Department heads. The CTE administrator is charged with promoting communication and collaboration between these leaders to facilitate program seamlessness and effectiveness (Yost et al., 2019; Zirkle & Jeffrey, 2017). These campus leaders are tasked with teaching their content to their students, partnering with the CTE PA to support the needs of CTE teachers and students, and they often serve as liaisons between the CTE PA and the CTE teachers under their leadership (Fleck et al., 2019; Ward & Graham-Brown, 2018;

Yost et al., 2019; Zirkle & Jeffrey, 2017). Several IDI participants, including multiple current CTE PAs, noted that they benefitted from partnership with outstanding CTE Department heads, whose knowledge of the program surpassed that of their own. One CTE PA suggested this is often the case in the district: "As you know, our [CTE] department heads know way more about the program we run than we do. Tapping into that knowledge base is priceless. I couldn't do my job well without her."

As a CTE PA working in this district, I can attest that my campus in particular benefits from an incredibly competent CTE Department head. She is a borderline zealot, serving not only as a consummate example of professionalism and excellence in education to those under her purview, but also as an invaluable liaison between myself and the CTE teachers when necessary, and between myself and district leadership when called upon to do so. She is an asset in the truest sense of the word, and if all campuses have someone as talented as she is working to help lead the CTE Department at the campus-level, the role of the CTE PA across the district is made less daunting.

The Mitochondria of the CTE Department. An additional layer to this overarching conclusion that may be drawn from the data is that chief among these embedded supports is the unsung hero of the campus CTE Departments—the CTE counselors. Interview data provide evidence that this professional does a great deal to facilitate the success of campus CTE Departments. This interview data coincides with literature review data about the role of CTE counselors. Scholars hold that these professionals often serve as the driving force behind effective CTE programs (Adamuti-Trache et al., 2020; Mardis, 2019; Reese, 2010), assuming a great deal of responsibility for facilitating the success of CTE students. As the extant literature expressed, these campus leaders, who serve as the only counselor dedicated to a specific content

area, work to provide leadership support to CTE departments by assisting with and/or handling issues that play integral roles in the success or failure of the department (Adamuti-Trache et al., 2020; Mobley et al., 2017; Stipanovic et al., 2017). Examples of these issues include, but are not limited to, ensuring the receipt of state and federal funding, course development, certification attainment, collecting and reporting CCMR data, and SEL concerns for CTE students.

To that end, looking at the study participants' perceptions of what it takes to effectively run a CTE program, the data from the BI respondents showed that the prevailing perception is that, while the duties and responsibilities are in line with those posited by scholars as being under the purview of the CTE PA, the bulk of these inputs fall upon the CTE counselor in many WISD campuses, not the CTE PA. BI and IDI data alike provided evidence that participants saw these roles being facilitated by the CTE counselor. Moreover, three current CTE counselors responded that they believed these inputs were a function of *their* position, not that of the CTE PA.

Specifically, ensuring program growth within a CTE department seems to be more of a function of the CTE counselor, at least in this district. In interviewing CTE counselors, I asked a follow-up question to ascertain whether this was a directive issued by the CTE PA, or if it was simply a gap these professionals chose to fill. Without casting any aspersions on current CTE PAs, all interviewed CTE counselors chose instead to affirm that it was something that needed to be done.

The conclusion drawn from this data, in conjunction with the data surmised from the literature review of this phenomenon, is that (a) these aspects of CTE programming are functions of the role of the CTE counselor in this district, or (b) they are delegated to the CTE counselor by the CTE PA in this district, or (c), at the risk of impugning CTE PAs in the district, this is simply an unassigned task that needs to be completed, and the CTE counselors are stepping up to fill this

void. Either way, the data collected provided ample evidence that in WISD these responsibilities are not performed by the CTE PAs.

On a personal note, as a current CTE PA in this district, I find these data convicting. I have served in this capacity for several years and, while I am proud to be able to state that I assume some of these duties as my own, I do not carry out all the duties that scholars claim I should. I, too, lean on the partnership I have with my CTE counselor to facilitate many of the aspects of the role that are ascribed to me by these scholars, and this study has illuminated a few of my shortcomings as an educational leader, and inspired me to take a more direct approach in applying the lessons garnered in this study to my professional context.

It All Starts with Teachers. The final, and perhaps most important embedded support the study data provided clear evidence of is a dedicated, student-centered workforce of CTE teachers. Most study participants were CTE teachers, and it was important for their collective voices to be heard in this research, as scholars posit that they do more to facilitate the success of the CTE students and to grow the CTE programs than perhaps any other member of the CTE Department (Cox et al., 2015; Hodes & Kelley, 2017; Malin & Hackmann, 2017; Yost et al., 2019; Zirkle & Jeffrey, 2017). To that end many BI participants, all of whom were CTE teachers, mentioned the importance of collaboration with the CTE PA as a key to CTE student achievement, lessened CTE teacher attrition, and overall program success. One CTE teacher spoke to this point, claiming, "You want our kids to thrive? Listen to teachers. You want more continuity in the department? Listen to teachers. You want program growth? Listen to teachers. We're on the ground floor. We see it all."

I can attest to how the CTE Department I lead has improved during my tenure, and it all has stemmed, at least in part, to my willingness to listen to CTE teachers. It started with my

recognition that these professional educators cared deeply about student success, as was evidenced by the fact that many of them left more lucrative career options to serve as teachers, pouring into their students to help facilitate their success. Additionally, I recognized that they were working to make the CTE Department successful well before I came to lead it, and as such I also recognized they simply knew things I did not. The entire CTE Department I am blessed to serve still benefits from their collective expertise, and not only am I not threatened by their collective expertise; I have come to depend on it.

Overarching Conclusion 3: A Little Intentionality Goes a Long Way

The data provided from both sets of interviewees, in keeping with scholarly research centered on this concept, supplies evidence that the CTE PA could have a positive impact on CTE programming at the campus-level (Campanotta et al., 2018; Fleck et al., 2019; Mobley et al., 2017). Assuming this is the case, per the data provided in this study, one conclusion that can be drawn is that more intentionality into the development of these campus leaders could yield more positive results for the programs they lead. This need for increased intentionality is evidenced in the findings and echoed by scholars who have studied this phenomenon (Fleck et al., 2019; Luaces et al., 2018, Malin et al., 2017; Mobley et al., 2017; Nicholas & Fleck, 2019).

Next, I address the remaining conclusions gleaned from the study data as they relate to the three overarching research questions.

Summary and Conclusions of RQ1

Referring to what scholars posit as part and parcel of effective CTE program administration in general, the most critical aspects of this position entail concepts, such as understanding program costs, accessing adequate program funding, marketing, policy development, safety and liability issues, facility maintenance, and knowledge of licensure

requirements for staff and students, establishing and maintaining community and business partnerships for program development and student opportunities, and ensuring program growth at the campus-level (Clark & Cole, 2015; Luaces et al., 2018; Tuckwiller et al., 2017; Yost et al., 2019; Zirkle & Jeffrey, 2017). These noted scholars claim that CTE program administration is less than effective, absent mastery of many, if not most, of these concepts.

About the study participants' perceptions of what entails effective CTE program administration in WISD, the data from the BI and IDI respondents substantially align with the data from the literature review in Chapter 2. Study participants noted program knowledge, program growth, and program ambassadorship as primary functions of the CTE PA role.

Summary and Conclusions of RQ2

Clark and Cole (2018) have studied this phenomenon extensively. They noted that, as recently as 2017, only 16 states in the United States required CTE administrators to hold a CTE administrative credential (Clark & Cole, 2018; Fleck et al., 2019; Zirkle, 2017; Zirkle & Jeffrey, 2017), and Texas, the setting of this study, is not one of those 16 states. With that stated, most state CTE directors and superintendents surveyed by Clark and Cole (2018) claimed they believed content-specific training was not only warranted, but they also believed it would be beneficial to their respective state education systems.

In keeping with the scholarly literature, the data findings of this study speak clearly regarding RQ2. BI participants were hard pressed to name systems and processes in place to facilitate CTE PA training in the district. IDI participants, however, seemed to have more information than BI participants about what the district has set up to support the developmental needs of its CTE PAs. Regardless of how much was or is in place, the district is not compelled by the state to provide such support or direction. To that end, anything that is in place is arguably

the result of perceived need, and information about whatever is in place is disseminated on a basis that excludes some leaders in the district that need to know it.

From my own perspective, I can say that I, as a CTE PA, was not asked about my preparedness or readiness for the role of CTE PA before being assigned to the job. Additionally, while I entered educational administration with almost two decades of what I believed to be solidly successful instructional experience, I did not have a background in CTE instruction. Many of the CTE standards, courses, and certification offerings were foreign to me, and I could write ad nauseum on all I did not know about funding access, building community bridges for CTE-specific student opportunities, and providing instructional coaching to professionals that were simultaneously content experts and novice teachers. It was up to me to ingratiate myself to the limited supports in place to assist me in my role, and I had to be conscientious enough to independently work to render myself an asset to the program I was charged with leading and to effectively facilitate the success of the students and staff I was tasked with serving. While in my experience the supports have been limited, the grace and space afforded me by district leadership to seek support from internal and external sources and grow professionally from these supports was patently limitless, sorely needed, and greatly appreciated.

Summary and Conclusions of RQ3

Data gleaned from interviewees provide ample evidence that the current CTE PAs in the district are considered effective, but one conclusion that may be drawn from the data is that this may not be a function of deliberate action taken by district leadership. The BI and IDI data provided evidence that effective CTE program administration is believed to be more assumed than developed. Specifically, 68% of baseline interviewees and 80% of in-depth interviewees reported they believed this to be the case, while only 7% of baseline interviewees and 20% of in-

depth interviewees believed effective CTE program administration was developed in WISD. These data coincide with extant scholarly literature on the subject, much of which speaks to the presumption of effective CTE program administration that is common in school districts (Bragg, 2017; Brodersen et al., 2016; Dougherty, 2018; Haag, 2015; Hemelt et al., 2019; Yost et al., 2019). Specifically, as recently as 2018, only seven U.S. states possessed a formal program for CTE administrator training and certification (Clark & Cole, 2015; Clark & Cole, 2018; Zirkle & Jeffrey, 2017). Texas, according to this study, is not one of those states that possess such a program; this is apropos, because this study was conducted in Texas. This extant literature serves as evidence that in Texas, this assumption is tantamount to standard operating procedure.

Speaking to the study context specifically, interview data provided evidence that all BI respondents (100%) and most (80%) IDI respondents either believed there was no specific CTE PA training provided by the district, or they believed that, if there was one, they were not aware of it. The conclusion drawn from these data is that if WISD is providing training specifically geared towards developing CTE PAs, which, according to extant scholarly data would be a break from the norm, it is either (a) not being accessed by all potential recipients, as many of these interviewees would have been potential recipients, and/or (b) the information about this training is not being shared to all in the district that may benefit from it. Either scenario validates the problem of practice and phenomenon studied with this research.

Another important data point is that 25% of BI respondents cited that effective CTE program leadership is developing in WISD, which leads me to conclude that this may mean that there is a growing belief that perceived progress in that regard is afoot. This conclusion is congruent with data derived from other studies that report that many school districts are

developing administrators to more effectively lead these programs (Estes & McCain, 2019; Ferguson, 2018; Zirkle & Jeffrey, 2017).

Implications

Based on the summary and conclusions of this study, there are implications of this research which may be important for practice in the district going forward. These implications include, but are not limited to, the need for CTE-specific professional development for administrators, the need for additional district-level leadership support for the CTE Department, and the need to recognize and support the efforts of the CTE counselor and CTE Department head.

CTE-Specific Professional Development for Administrators

One implication of this study is that perhaps more resources could be allocated towards developing CTE PAs with more intentionality regarding a few main points. As most study participants cited a lack of CTE-specific training in WISD, the first point may be ensuring those that are assigned these campus roles are aware of the scope of their responsibility. Specifically, these leaders could receive professional development training on issues, such as the breadth of CTE course offerings, TEA mandate updates, information about the Perkins Grant and other available financial resources, CTE courses that the district would like to introduce and/or may need to discontinue, new technologies CTE students need to be utilizing, and how to secure access to these for students (Clark & Cole, 2015; Kitchel, 2015; Luaces et al., 2018; Mobley et al., 2017; Saeger, 2017; Zirkle & Jeffrey, 2017; Zinth, 2013).

It could also be helpful if part of this training included introducing CTE PAs to community stakeholders that want to partner with local campuses to help the CTE students bridge the gap from student to working professional, whether through internships, mentorship, or

scholarship. This was mentioned as a need by several study participants in both interview groups and is cited in the extant literature (Estes & McCain, 2019; Ferguson, 2018; Jackson & Hasak, 2014; Shumer & Digby, 2012; Zirkle & Jeffrey, 2017).

Finally, this professional development could ensure CTE PAs know how to access support at the campus-, district-, and community-level (Clark & Cole, 2018; Fleck et al., 2019; Holecek et al., 2016; Kosloski & Fritz, 2016; Zirkle & Jeffrey, 2017). One point of distinction I found between the BI and IDI groups was that the BI group respondents reported having little knowledge of where to go for content area support, while the IDI group respondents cited that content area support, while centralized and limited, was easily accessed. This professional development could help to eliminate this communication and/or information gap going forward, ensuring all CTE personnel are equally informed about access to support.

Leadership Support

Plainly stated, in WISD our source of CTE support needs assistance to effectively provide more support. I found that a common refrain from study participants was that the job of running the CTE Department was simply too extensive for one person to handle effectively. Another implication, in keeping with extant scholarly input, is that it is possible that the CTE support at the district-level may be less than what is needed for a district as large as WISD (Fleck et al., 2019; Holecek et al., 2016; Kosloski & Fritz, 2016). This is by no means a criticism of the job the executive director of CTE is doing; in fact, the data from this study provides evidence that those under the purview of this leader have nothing but positive feedback to offer regarding her leadership. The only issue cited by study participants was that the director needs more help to effectively lead a department in a district as large as WISD. This may explain why many respondents remarked with relief at the addition of the assistant CTE director in 2022.

The data derived from this study and the literature reviewed serve as evidence that the addition of an assistant director of CTE is seen as value-added by study participants, but it also serves as evidence that it is possible that more assistance is necessary (Holecek et al., 2016; Zirkle & Jeffrey, 2017). With that stated, strides the district has made in securing assistance for the executive director of CTE, while laudable and potentially helpful in many ways, may be one of several such strides needed at the district-level to support the mission, vision, and goals of CTE programming. To that point, perhaps the infrastructure at the district-level of the CTE Department could be broadened, to ensure district-led CTE supports are in place at the campuslevel throughout the district. This level of support may be best implemented by adding personnel at the district level to serve as liaisons to the campuses that offer CTE programming.

Recognizing and Supporting the CTE Counselor and Department Head

Another implication of this research is found in the data, which provides evidence that much of the success of CTE programs at the campus-level is dependent upon the work of the CTE counselor and CTE department head at that campus. Scholars noted that, absent synergy between this triumvirate, it is highly unlikely that any CTE program would run effectively (Berry, 2019; Nguyen & Hunter, 2018; Yücesoy et al., 2020). These professionals not only work to create CTE courses and balance CTE classes for CTE teachers (Berry, 2019; Clark & Cole, 2015), but according to the input received from CTE counselors, CTE Department heads, CTE PAs, and several teachers of CTE courses, these campus assets play an instrumental role in ensuring the CTE students are successful in their CTE studies, which in turn helps to lead the CTE programs to success.

To the point of recognizing and supporting the CTE counselor, in analyzing data, I found that many participant responses spoke to the importance of ensuring the SEL needs of CTE

students were met and providing ample opportunities for CTE students to receive technical training, career exploration, and career advancement while enrolled in CTE courses.

Surprisingly, most participants seemed to consider these concepts as under the purview of the CTE counselor. This surprised me because I had seen these concepts as functions of the CTE PA.

Additionally, the CTE department head is, according to study data, better equipped to recognize, address, and assuage CTE teacher concerns. Teacher burnout has become a scourge on the public education landscape, and several BI participants remarked at how they have been "talked off the ledge" multiple times by their department head. This is invaluable to the department, as well as the campus, because, as scholars maintain, students and campuses are positively impacted by continuity and consistency within their workforce (Hasselquist & Graves, 2020; Park & Johnson, 2019; Yücesoy et al., 2020). While extant literature provides evidence that CTE departments historically do not have high levels of teacher turnover (Deever, et al., 2020; Hasselquist & Graves, 2020; Yücesoy et al., 2020), not one BI or IDI participant mentioned anything about a CTE PA preventing teacher burnout or teacher turnover. Conversely, several of these participants mentioned the role CTE department heads play in helping to lessen the effects of this plague on public schools. As one study participant remarked, "If it weren't for [the CTE Department head at their campus], I would've left two years ago. She and the kids keep me in this profession."

The data provided in this study serve as evidence that these tasks, regardless of to whom they are assigned, are being mastered by CTE counselors and CTE department heads. To that end, an implication of this study is it may be imperative that these role players be recognized for the jobs they are doing, and supported, both at the campus- and district-level, so that these

professionals might continuously improve upon the services they render to the department they serve.

Forging an Internal Partnership Within the CTE Department

Finally, an implication of this research in my context is that it is evident that it may be beneficial to all campus CTE programs in WISD if the CTE PA, counselor, and department head partnered with each other more intentionally as a matter of practice. This change could help to ensure the burden of seeing to the SEL-needs of CTE students, improving CTE programming and growing the department, lowering teacher attrition, and facilitating opportunities for CTE students to receive technical training, career exploration, and career advancement. In doing so, this could prevent situations in which CTE counselors are described as overextended, as this study exposed was the case for the district's CTE executive director.

Recommendations for Future Research

To further explain why this study was necessary, I submit five recommendations for future research of the problem of practice that lies at the core of this study. The first two recommendations are founded in what I believe to be limitations of this study. The next two recommendations are based on investigating the phenomenon in comparable contexts. Last, the final recommendation seeks to use this study as scaffolding, utilizing a particular finding in this research as the basis for future study.

Get Input from CTE Students

The first two recommendations for future research are based on what I perceive as inherent flaws in, or limitations of, this study. It could be argued that this study was limited because it only focused on gleaning feedback from those responsible with delivering CTE instruction and providing instructional leadership. It may be beneficial for future research to

include input from CTE students, those that receive the instruction and benefit or suffer from effective or ineffective instructional leadership. While this study provided insight from teachers, department heads, professional school counselors, campus administrators, and district administrators, no insights from current or former CTE students was sought or utilized. Perhaps future research could provide for better data triangulation and ultimately better inform practice if it captured the perspectives of those that are most directly impacted by CTE programming—CTE students.

Find the Why/Why Not

The second recommendation for future study involves the limitation of the yet unearthed reasoning behind the lack of intentional development of CTE program leaders, and/or a settled framework for leader selection within this content area. The contention that CTE programming is beneficial to the education of the whole child is well-established (Fletcher et al., 2018; Hemelt et al., 2019; Luaces et al., 2018; Mobley et al., 2017; Saeger, 2017; Wai-Ling Packard et al., 2012; Zirkle, 2002), but these CTE researchers have not unearthed the reasoning behind how CTE administrators acquire the requisite background knowledge to lead that department, thus facilitating a benefit to the whole child. More research is needed to delineate how these program leaders are selected, and perhaps even more importantly, how they are developed. Additionally, the reasoning behind these selection and development strategies should be unpacked, as the *how* is often less useful to understand without also fully grasping the *why* behind it.

Compare Contexts

Another recommendation for future research involves examining this phenomenon in another context. Specifically, it could be beneficial to seek out a comparable school district in size, student population, student demographics, and district resources that addresses CTE

program administration similarly to WISD and conducting a similar study there. This study could help inform the research, and the findings of that future research could yield powerful data for all such comparable school districts as they determine how best to address the phenomenon.

Building upon this study, it would also be beneficial to determine measurables for CTE programming within this context. Potential examples of CTE student data for this comparison study could include the percentage of students in the district taking CTE coursework, the percentage of CTE students that are CTE track completers, and CCMR data for the district.

Potential examples of CTE program data would be the CTE support infrastructure at the campuslevel, how many CTE courses were offered, how many certifications were offered, and how much program growth has been experienced in a set amount of time.

Contrast Contexts

In keeping with the concept of examining this phenomenon in a comparable context, it could also prove worthwhile to conduct a similar study in a comparably sized school district that addresses CTE program administration differently from WISD. For example, it would be beneficial to conduct a study wherein the comparable school district had a more established CTE infrastructure than WISD does, with multiple levels of CTE leadership at the district-level and clearly defined CTE leadership roles at the campus-level, perhaps there was an earlier focus on CTE programming, introducing the concept with a heightened degree of intentionality at the middle-school level. In this potential study, it would be beneficial to contrast CTE program and CTE student data, as explained in the previous recommendation for future study.

Making CTE Administration Professional Development More Accessible

Finally, a recommendation for future research that involves building on a particular finding in this study could be beneficial. This study provided evidence that in WISD, the concept

of CTE-specific professional development for administrators was relatively foreign. With that stated, it is understood by CTE scholars that CTE administrative professional development is not a foreign concept everywhere in the United States (Clark & Cole, 2015; Conrad & Watkins, 2021; Zirkle & Jeffrey, 2017). Researchers have reported that there is CTE PA training and development taking place in at least 16 states; Texas is not one (Clark & Cole, 2015; Zirkle & Jeffrey, 2017). Studies have also shown that CTE program growth is inextricably tied to program leadership (Conrad & Watkins, 2021; Zirkle & Jeffrey, 2017). Connecting these concepts, the recommendation is it may prove beneficial to study how Texas school districts like WISD might provide, or at least effectively outsource, quality training for its CTE PAs, which, according to extant literature, could facilitate CTE program growth in these school districts.

Conclusion

This study was begun with the sentiment, confirmed by scholars, that CTE programs serve to educate the whole child and prepare students for a professional career after high-school graduation (Kitchel, 2015; Luaces et al., 2018; McGuinn, 2016; Mobley et al., 2017). If CTE programs play a pivotal role in paving the way for success for students, it stands to reason that these programs should be led effectively and efficiently. To that point, the data provided by scholarly studies serve as evidence of what can happen when CTE programs are ineffectively led (Bragg, 2017; Dougherty, 2018; Hemelt et al., 2019; Saeger, 2017; Tas, 2017). These facts provided the backdrop of this research.

The expressed purpose of this qualitative case study was to examine the quality and effectiveness of existing CTE program administration in WISD from the perspectives of the current CTE personnel. Additionally, this study sought to determine if these CTE personnel perceived that effective campus-level leadership of the CTE Departments in the district was

assumed or developed. Through baseline and in-depth interviews with current, seasoned CTE teachers, counselors, PAs, as well as key district personnel, I made several determinations.

First, it was determined that WISD does possess quality, effective campus leadership within its CTE Department. Based on the insights provided by study participants, these campus leaders are professional and working hard at the goal of effectively leading these departments across district high schools.

Secondly, the feedback given in this research serves as evidence that the CTE personnel believed that quality, effective leadership of CTE programs is necessary, impactful, and worthy of intentionality towards continuous improvement. I addressed how to best facilitate this continuous improvement in the previous section of this chapter.

Finally, it was determined that participants believed that effective CTE program administration is assumed in WISD. While some IDI participants noted that effectiveness was developing, the data provides clear evidence that most participants believe the overall effectiveness enjoyed by CTE departments in WISD are not a byproduct of intentional developmental steps taken by the leadership of the school district. To that end, it was stated by multiple participants that, while the effectiveness of CTE PAs was not developed, it should be. I made recommendations as to how best to address this problem of practice in the previous section of this chapter.

Focused on the overarching goal of improving the administration of CTE programming, this study disclosed existing perspectives, identified inherent strengths and deficiencies in the current CTE program administration, and provided suggestions that may lead to improvements in CTE program administration going forward. In that vein, I offer that this study may serve to inform those in district leadership of where the campus-level leadership of CTE programs stands,

and to inform the next steps of these leaders in taking purposeful measures to improve the effectiveness of CTE program leadership in the future.

References

- Adamuti-Trache, M., Zhang, Y. L., & Barker, S. L. (2020). Texas perspectives on college and career readiness: An examination of CTE-supported endorsements in public high Schools. *Career and Technical Education Research*, *45*(2), 59–78.

 https://doi.org/10.5328/cter45.2.59
- Aggarwal, R., & Ranganathan, P. (2019). Study designs: Part 2 Descriptive studies.

 *Perspectives in Clinical Research, 10(1), 34–36.

 https://doi.org/10.4103/picr.PICR_154_18
- Ahearn, C., Rosenbaum, J., & Rosenbaum, J. (2016). What educators should know about college-for-all policies. *Phi Delta Kappan*, 97(5), 49–54. https://doi.org/10.1177/0031721716629658
- Alase, A. (2017) The Interpretative Phenomenological Analysis (IPA): A guide to a good qualitative research approach. *International Journal of Education & Literacy Studies*, 5(2), 919. https://doi.org/10.7575/aiac.ijels.v.5n.2p.9
- Algozzine, B., & Hancock, D. (2016). *Doing case study research: A practical guide for beginning researchers*. Teachers College Press.
- Anderson, E., & Reynolds, A. (2015). The state of state policies for principal preparation program approval and candidate licensure. *Journal of Research on Leadership Education*, 10(3), 193–221. https://doi.org/10.1177/1942775115614292
- Anderson, V. (2017). Criteria for evaluating qualitative research. *Human Resource Development Quarterly*, 1–9. https://doi.org/10.1002/hrdq.21282
- Astalin, P. K. (2013). Qualitative research designs: A conceptual framework. *International Journal of Social Science & Interdisciplinary Research*, 2(1), 118–124.

- http://indianresearchjournals.com/pdf/IJSSIR/2013/January/13.pdf
- Backor, K. T., & Gordon, S. P. (2015). Preparing principals as instructional leaders: Perceptions of university faculty, expert principals, and expert teacher leaders. *NASSP Bulletin*, *99*, 105–126. https://doi.org/10.1177/0192636515587353
- Bailey, C. R., & Bailey, C. A. (2017). A guide to qualitative field research. Sage Publications.
- Balyer, A., Özcan, K., & Yildiz, A. (2017). Teacher empowerment: School administrators' roles.

 *Eurasian Journal of Educational Research, 70, 1–18.

 https://files.eric.ed.gov/fulltext/EJ1150231.pdf
- Bartlett, L., & Vavrus, F. (2016). *Rethinking case study research: A comparative approach*.

 Taylor & Francis.
- Berry, B. (2019). Teacher leadership: Prospects and promises. *Phi Delta Kappan, 100*(7), 49–55. https://doi.org/10.1177/0031721719841339
- Bevan, M. T. (2014). A method of phenomenological interviewing. *Qualitative Health Research*, 24(1), 136–144. https://doi.org/10.1177/1049732313519710
- Boberg, J. E., Bourgeois, S. J., & Bryant, D. (2016). The effects of integrated transformational leadership on achievement. *Journal of Educational Administration*, *54*(3), 357–374. https://doi.org/10.1108/jea-07-2014-0086
- Bragg, D. D. (2017). The case for evaluating student outcomes and equity gaps to improve pathways and programs of study. *New Directions for Community Colleges*, 2017(178), 55–66. https://doi.org/10.1002/cc.20253
- Bragg, D., Taylor, J. (2014). Toward college readiness: How different models produce similar results. *American Behavioral Scientist*, *58*(8), 994–1017. https://doi.org/10.1177/0002764213515231

- Brodersen, R. M., Yanoski, D., Hyslop, A., & Imperatore, C. (2016). Toward the development of a program quality framework for career and technical education programs: A researcher-practitioner collaborative project. *Society for Research on Educational Effectiveness*.

 https://files.eric.ed.gov/fulltext/ED567481.pdf
- Bryant, A. (2017). *Grounded theory and grounded theorizing: Pragmatism in research practice*.

 Oxford University Press.
- Burris, C., & Welner, K. (2005). Closing the achievement gap by detracking. *Phi Delta Kappan*, 86(8), 594–598. https://www.proquest.com/scholarly-journals/closing-achievement-gap-detracking/docview/218517719/se-2
- Calhoun, E. F. (2019). Action research for systemic change in education. *Wiley Handbook of Action Research in Education*, 415.
- Callegaro, M., & Yang, Y. (2018). The role of surveys in the era of "big data." *Palgrave handbook of survey research* (pp. 175–192). Palgrave Macmillan, Cham.
- Campanotta, L., Simpson, P., & Newton, J. (2018). Program quality in leadership preparation programs: An assessment tool. *Education*, *138*(3), 219–228.
- Campbell, K. H. (2013). A call to action: Why we need more practitioner research. A response to "A teacher educator uses action research to develop culturally conscious curriculum planners". *Democracy and Education*, 21(2).

 http://democracyeducationjournal.org/home/vol21/iss2/7
- Cantwell, B., Milem, J. (2010). Locating space and place in the college access debate: New tools for mapping and understanding educational inequity and stratification. In P. E. Baker & B. McGrow (Eds.), *International Encyclopedia of Education*, (pp. 636–648). Elsevier. https://doi.org/10.1016/B978-0-08-044894-7.00120-2

- Carey, K. (2011). College for all? *Wilson Quarterly*, *35*(4), 48. http://archive.wilsonquarterly.com/essays/college-all
- Carnevale, A. P., Rose, S. J., Cheah, B. (2013). *The college payoff: Education, occupations, lifetime earnings*. Center on Education and the Workforce, Georgetown University.

 https://cewgeorgetown.wpenginepowered.com/wp-content/uploads/collegepayoff-completed-pdf
- Carter, P. L., & Welner, K. G. (Eds.). (2013). Closing the opportunity gap: What America must do to give every child an even chance. Oxford University Press.
- Castellano, M. E., Richardson, G. B., Sundell, K., & Stone, J. R. (2017). Preparing students for college and career in the United States: The effects of career-themed programs of study on high school performance. *Vocations and Learning*, *10*(1), 47–70.

 https://doi.org/10.1007/s12186-016-9162-7
- Castellano, M. E., Sundell, K., & Richardson, G. B. (2017). Achievement outcomes among high school graduates in college and career readiness programs of study. *Peabody Journal of Education*, 92(2), 254–274. https://doi.org/10.1080/0161956X.2017.1302220
- Castro, E. L. (2013). Racialized readiness for college and career toward an equity-grounded social science of intervention programming. *Community College Review*, 41(4), 292–310. https://doi.org/10.1177/0091552113504291
- Çevik, M., & Özgünay, E. (2018). STEM education through the perspectives of secondary schools" teachers and school administrators in Turkey. *Asian Journal of Education and Training*, 4(2), 91–101. https://files.eric.ed.gov/fulltext/EJ1172085.pdf
- Chandler, R., Anstey, E., & Ross, H. (2015). Listening to voices and visualizing data in qualitative research. *Sage Open*, 5(2), 1–8. https://doi.org/10.1177/2158244015592166

- Charmaz, K., & Belgrave, L. (2012). Qualitative interviewing and grounded theory analysis. In SAGE handbook of interview research: The complexity of the craft, 2, (pp. 347–365). https://doi.org/10.4135/9781452218403.n25
- Charmaz, K., & Thornberg, R. (2020). The pursuit of quality in grounded theory. *Qualitative Research in Psychology*, 18(3), 1–23. https://doi.org/10.1080/14780887.2020.1780357
- Chughtai, H., & Myers, M. D. (2017). Entering the field in qualitative field research: A rite of passage into a complex practice world. *Information Systems Journal*, 27(6), 795–817. https://doi.org/10.1111/isj.12124
- Chun Tie, Y., Birks, M., & Francis, K. (2019). Grounded theory research: A design framework for novice researchers. *SAGE Open Medicine*, 7.

 https://doi.org/10.1177/2050312118822927
- Clark, R. W., & Cole, B. (2015). A look at leadership: An examination of career and technical administrator preparation in the United States. *Career and Technical Education**Research, 40(1), 63–80. https://doi.org/10.5328/cter40.1.63
- Clark, R. W., Farmer, E. I., & Welch, S. M. (2010). An examination of leadership issues facing Pennsylvania career and technical administrators. *Career and Technical Education**Research*, 35(1), 47–62. https://eric.ed.gov/?id=EJ913658
- Connelly, L. M. (2016). Trustworthiness in qualitative research. *Medsurg Nursing*, 25(6), 435–437. https://www.thefreelibrary.com/Trustworthiness+in+qualitative+research.-
 a0476729520
- Conneely, N., & Hyslop, A. (2018). *CTE: Education for a strong economy*. Association for Career and Technical Education. https://files.eric.ed.gov/fulltext/ED580923.pdf

- Conrad, M., & Watkins, L. (2021, December 6). *Landscape of CTE leaders: Career and technical education leadership series*. Updated. Association for Career and Technical Education. https://files.eric.ed.gov/fulltext/ED616683.pdf
- Cox, E. D., Hernández-Gantes, V. M., & Fletcher E. C. (2015). Student participation in career academies within a school district: Who participates, what makes a difference? *Career and Technical Education Research*, 40(1), 11–27. https://doi.org/10.5328/cter40.1.11
- Creswell, J. W. (2013). Qualitative inquiry and research design: Choosing among five traditions. Sage.
- Daniel, B. K. (2019). What constitutes a good qualitative research study? Fundamental dimensions and indicators of rigour in qualitative research: The TACT framework. In *Proceedings of the European conference of research methods for business & management studies* (pp. 101–108). https://doi.org/10.34190/RM.19.113
- Darling-Hammond, L. (2016). Research on teaching and teacher education and its influences on policy and practice. *Educational Researcher*, 45(2), 83-91. https://doi.org/10.3102/0013189X1663959717
- Deever, D. A., Grubaugh, S., Levitt, G., & Gonzales, G. (2020). Why new career & technical education teachers leave, why new ones stay and how principals affect attrition and retention rates. *Journal of Education and Human Development*, 9(2), 1–12.
- Deterding, N. M., & Waters, M. C. (2018). Flexible coding of in-depth interviews: A twenty-first-century approach. *Sociological Methods & Research*, 50(2), 708–739. https://doi.org/10.1177/0049124118799377

- Dittmann, A. G., & Stephens, N. M. (2017). Interventions aimed at closing the social class achievement gap: Changing individuals, structures, and construals. *Current Opinion in* Psychology, *18*, 111-116. https://doi.org/10.1016/j.copsyc.2017.07.044
- Dougherty, D. (2017). Grounded theory research methods. *Blackwell Companion to Organizations*, 849–866. https://doi.org/10.1002/9781405164061.ch37
- Dougherty, S. M. (2018). The effect of career and technical education on human capital accumulation: Causal evidence from Massachusetts. *Education Finance and Policy*, 13(2), 119–148. https://doi.org/10.1162/edfp a 00224
- Dougherty, S. M., & Lombardi, A. R. (2016). From vocational education to career readiness: The ongoing work of linking education and the labor market. *Review of Research in Education*, 40, 326–355. https://cepa.uconn.edu/wp-content/uploads/sites/399/2015/12/Dougherty_Lombardi_RRE_2016_published.pdf
- Dykzeul, T. (2017). The effects of career and technical education on high school students

 [Doctoral Dissertation, St. Mary's College of California]. ProQuest.

 https://www.proquest.com/dissertations-theses/effects-career-technical-education-on-high-school/docview/1949711131/se-2
- Efron, S. E., & Ravid, R. (2019). *Action research in education: A practical guide*. Guilford Publications.
- Estes, A., & McCain, B. (2019). Four strategies to address equity in CTE. *State Education Standard*, 19(3), 10. https://files.eric.ed.gov/fulltext/EJ1229646.pdf
- Faifua, D. (2014). The key informant technique in qualitative research. Sage.
- Feldman, E. J. (2019). A practical guide to the conduct of field research in the social sciences.

 Routledge.

- Ferguson, M. (2018). Washington view: The past, present, and future of CTE. *Phi Delta Kappan*, 100(2), 64–65. https://kappanonline.org/ferguson-cte-career-technical-education-washington/
- Fleck, J. A., Threeton, M. D., & Ewing, J. C. (2019). Important leadership skills for career and technical education administrators. *Career and Technical Education Research*, 44(1), 40–56. https://doi.org/10.5328/cter44.1.40
- Fletcher, E. C., Jr., Warren, N. Q., & Hernández-Gantes, V. M. (2018). Preparing high school students for a changing world: College, career, and future ready learners. *Career & Technical Education Research*, 43(1), 77–98. https://doi.org/10.5328/cter43.1.77
- Flick, U. (2004). Triangulation in qualitative research. In U. Flick, E. von Kardoff, & I. Steinke (Eds.), *A companion to qualitative research* (pp. 178–183). Sage.
- Fuller, E. J., Hollingworth, L., An, B. (2016). The impact of personal and program characteristics on the placement of school leadership preparation program graduates in school leader positions. *Educational Administration Quarterly*, 52, 643–674. https://doi.org/10.1177/0013161X16656039
- Gilchrist, V. J. (1992). Key informant interviews. In B. F. Crabtree & W. L. Miller (Eds.), *Doing qualitative research* (pp. 70–89). Sage.
- Gillborn, D., Demack, S., Rollock, N., & Warmington, P. (2017). Moving the goalposts:

 Education policy and 25 years of the Black/White achievement gap. *British Educational Research Journal*, *43*(5), 848–874. https://doi.org/10.1002/berj.3297
- Given, L. M. (2007). "Descriptive Research" In N. J. Salkind & K. Rasmussen (Eds.), Encyclopedia of measurement and statistics (pp. 251-254). Sage.
- Glaser, B. G., & Strauss, A. L. (2017). Discovery of grounded theory: Strategies for qualitative

- research. Routledge.
- Grissom, J. A., Mitani, H., & Woo, D. S. (2019). Principal preparation programs and principal outcomes. *Educational Administration Quarterly*, 55(1), 73–115. https://doi.org/10.1177/0013161X18785865
- Goins, C. (2016). A phenomenological study examining the experiences of high school graduates who participated in a career and technical education program of study [Doctorla dissertation, Liberty University]. Digital Commons.

 https://digitalcommons.liberty.edu/cgi/viewcontent.cgi?article=2182&context=doctoral
- Golann, J. W. (2015). The paradox of success at a no-excuses school. *Sociology of education*, 88(2), 103–119. https://doi.org/10.1177/0038040714567866
- Gorski, P. C. (2017). Reaching and teaching students in poverty: Strategies for erasing the opportunity gap. Teachers College Press.
- Gottfried, M. A., & Plasman, J. S. (2018). Linking the timing of career and technical education coursetaking with high school dropout and college-going behavior. *American Educational Research Journal*, 55(2), 325–361.

 https://doi.org/10.3102/0002831217734805
- Goyette, K. A. (2008). College for some to college for all: Social background, occupational expectations, and educational expectations over time. *Social Science Research*, *37*(2), 461–484. https://doi.org/10.1016/j.ssresearch.2008.02.002
- Grissom, J. A., Mitani, H., & Woo, D. S. (2019). Principal preparation programs and principal outcomes. *Educational Administration Quarterly*, 55(1), 73–115. https://doi.org/10.1177/0013161X18785865

- Haag, P. W. (2015). The challenges of career and technical education concurrent enrollment: An administrative perspective. *New Directions for Community Colleges*, 2015(169), 51–58. https://doi.org/10.1002/cc.20132
- Hallinger, P., & Bridges, E. M. (2017). A systematic review of research on the use of problem-based learning in the preparation and development of school leaders. *Educational Administration Quarterly*, *53*(2), 255–288. https://doi.org/10.1177/0013161X16659347
- Harreveld, B., Danaher, M., Lawson, C., Knight, B. A., & Busch, G. (Eds.). (2016). Constructing methodology for qualitative research: Researching education and social practices.

 Springer.
- Harrison, H., Birks, M., Franklin, R., & Mills, J. (2017). Case study research: Foundations and methodological orientations. *Forum Qualitative Sozialforschung/Forum: Qualitative Sozial Research*, 18(1). https://doi.org/10.17169/fqs-18.1.2655
- Hasselquist, L. & Graves, N. (2020). CTE teacher retention: Lessons learned from mid-career teachers. Career and Technical Education Research, 45(1), 3–16.
 https://doi.org/10.5328/cter45.1.3
- Hemelt, S. W., Lenard, M. A., & Paeplow, C. G. (2019). Building bridges to life after high school: Contemporary career academies and student outcomes. *Economics of Education Review*, 68, 161–178. https://www.echs-nm.com/wp-content/uploads/2019/10/hemelt-2019.pdf
- Hendricks, C. C. (2017). *Improving schools through action research: A reflective practice approach*. Pearson.

- Hennink, M. M., Kaiser, B. N., & Marconi, V. C. (2017). Code saturation versus meaning saturation: How many interviews are enough? *Qualitative Health Research*, 27(4), 591–608. https://doi.org/10.1177/1049732316665344
- Hess, F. M. (2016). College readiness for all? *Educational Leadership*, 73(6), 36-41. https://eric.ed.gov/?id=EJ1092900
- Hodes, C. L., & Kelley, P. L. (2017). Closing the skills gap through technical excellence. *Athens Journal of Education*, 4(3), 253–269. https://files.eric.ed.gov/fulltext/EJ1219809.pdf
- Holecek, C., Beckham, K., & McKethan, D. (2016). Developing teacher leaders in CTE.

 Connecting Education & Careers, 91(6), 35–38.

 https://www.wacoisd.org/cms/lib/TX49000021/Centricity/Domain/7607/Techniques
 September2016-DevelopingCTETeacherLeaders.pdf
- Howard, T. C. (2019). Why race and culture matter in schools: Closing the achievement gap in America's classrooms. Teachers College Press.
- Imperatore, C., & Hyslop, A. (2017). CTE policy past, present, and future: Driving forces behind the evolution of federal priorities. *Peabody Journal of Education*, 92(2), 275–289. https://doi.org/10.1080/0161956X.2017.1302221
- Ismail, A., & Mydin, A. A. (2019, March). The impact of transformational leadership and commitment on teachers' innovative behaviour. In 4th ASEAN conference on psychology, counselling, and humanities (pp. 426-430). Atlantis Press.
- Ivey, J. (2016). Is descriptive research worth doing? *Pediatric Nursing*, 42(4), 189.
- Jackson, J. H., & Hasak, J. (2014). Look beyond the label: Reframing, reimagining, and reinvesting in CTE. *American Educator*, *38*(3), 34–39. https://files.eric.ed.gov/fulltext/EJ1044033.pdf

- Jackson, K., Johnson, R. C., & Persico, C. (2015). The effects of school spending on educational and economic outcomes: Evidence from school finance reforms. *Quarterly Journal of Economics*, 130(4). https://www.ipr.northwestern.edu/documents/working-papers/2015/IPR-WP-15-19.pdf
- Jocson, K. M. (2018). "I want to do more and change things": Reframing CTE toward possibilities in urban education. *Urban Education*, *53*(5), 640–667. https://doi.org/10.1177/0042085915618714
- Kapa, R. R., Luke, J., Moulthrop, D., & Gimbert, B. (2018). Teacher victimization in authoritative school environments. *Journal of School Health*, 88(4), 272–280. https://doi.org/10.1111/josh.12607
- Kegler, M. C., Raskind, I. G., Comeau, D. L., Griffith, D. M., Cooper, H. L., & Shelton, R. C. (2019). Study design and use of inquiry frameworks in qualitative research published in health education & behavior. *Health Education & Behavior*, 46(1), 24–31. https://doi.org/10.1177/1090198118795018
- Khalifa, M. A. (2018). *Culturally responsive school leadership* (Vol. 217). Harvard Education Press.
- Kidwai, H., & Iyengar, R. (2017). Introduction: Participatory action research and education—

 Key approaches and debates. In *Participatory action research and educational*development (pp. 1–12). Palgrave Macmillan, Cham.
- King, A. (2017). Implementation of data-driven decision-making professional development: An action research-project with career and technical education teachers [Doctoral Dissertation, Wilmington University]. Delaware Collections.

 https://delaware.contentdm.oclc.org/digital/collection/p15323coll5/id/3025/

- Kiral, B. (2020). The relationship between the empowerment of teachers by school administrators and organizational commitments of teachers. *International Online Journal of Education and Teaching*, 7(1), 248–265.
- Kitchel, A. (2015). An examination of the contribution of career and technical education to stem education, student leadership, and career readiness. *Journal of Research in Business Education*, 57(1), 18–39.
- Koedel, C., Parsons, E., Podgursky, M., & Ehlert, M. (2015). Teacher preparation programs and teacher quality: Are there real differences across programs? *Education Finance and Policy*, *10*(4), 508–534. https://doi.org/10.1162/EDFP_a_00172
- Korstjens, I., & Moser, A. (2018). Series: Practical guidance to qualitative research. Part 4:

 Trustworthiness and publishing. *European Journal of General Practice*, 24(1), 120–124.

 https://doi.org/10.1080/13814788.2017.1375092
- Kosloski, M. F., Jr., & Ritz, J. M. (2016). Research needs: Career and technical education.

 *Career and Technical Education Research, 41(2), 107–130.

 https://doi.org/10.5328/cter41.2.107
- Kotamraju, P., & Mettille III, J. L. (2012). *Using return on investment (ROI) and other related tools: Guidelines for measuring career and technical education (CTE) internal efficiency and external effectiveness*. National Research Center for Career and Technical Education.
- Krahenbuhl, K. S. (2016). Student-centered education and constructivism: Challenges, concerns, and clarity for teachers. *Clearing House: A Journal of Educational Strategies, Issues, and Ideas*, 89(3), 97–105. https://doi.org/10.1080/00098655.2016.1191311
- Kwan, P. (2020). Is transformational leadership theory passé? Revisiting the integrative effect of instructional leadership and transformational leadership on student outcomes.

- Educational Administration Quarterly, 56(2), 321–349. https://doi.org/10.1177/0013161X19861137
- Ladson-Billings, G. (2013). Lack of achievement or loss of opportunity. In P.L. Carter & K.G. Welner (Eds.), *Closing the opportunity gap: What America must do to give every child an even chance* (pp. 11–22). Oxford University Press.
- Lambert, V. A., & Lambert, C. E. (2012). Qualitative descriptive research: An acceptable design.

 Pacific Rim International Journal of Nursing Research, 16(4), 255–256.
- Landers, P. (2019). Ensuring equity in evolving high school career and technical education policies. Fast Focus. No. 42-2019. Institute for Research on Poverty.
- Lebesch, A. M. (2012). Using labor market information in program development and evaluation.

 *New Directions for Institutional Research, 2012(153), 3–12.

 https://doi.org/10.1002/ir.20002
- Leech, N. L., & Onwuegbuzie, A. J. (2007). An array of qualitative data analysis tools: A call for data analysis triangulation. *School Psychology Quarterly*, 22(4), 557.
 https://doi.org/10.1037/1045-3830.22.4.557
- Leech, N. L., & Onwuegbuzie, A. J. (2011). Beyond constant comparison qualitative data analysis: Using NVivo. *School Psychology Quarterly*, 26(1), 70–84. https://doi.org/10.1037/a0022711
- Lesh, J. J., & Gleason, J. (2019). Supportive contexts for action research. Wiley Handbook of Action Research in Education, 229.
- Lochmiller, C. R. (2016). Examining administrators' instructional feedback to high school math and science teachers. *Educational Administration Quarterly*, *52*(1), 75–109. https://doi.org/10.1177/0013161X15616660

- Luaces, M. A., Cearley, M., Ramaswamy, M., Chang, K., & Cupertino, P. (2018). Envisioning career technical education as a platform for student empowerment. *CTE Journal*, *6*(2), 2–14. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6625782/
- Malin, J. R., Bragg, D. D., & Hackmann, D. G. (2017). College and career readiness and the Every Student Succeeds Act. *Educational Administration Quarterly*, 53(5), 809–838. https://doi.org/10.1177/0013161X17714845
- Malin, J. R., & Hackmann, D. G. (2017). Enhancing students' transitions to college and careers:

 A case study of distributed leadership practice in supporting a high school career academy model. *Leadership and Policy in Schools*, *16*, 54–79.

 https://doi.org/10.1080/15700763.2016.1181191
- Manfra, M. M. (2019). Action research and systematic, intentional change in teaching practice.

 *Review of Research in Education, 43(1), 163–196.

 https://doi.org/10.3102/0091732X18821132
- Manning, J. (2017). In vivo coding. In J. Matthes (Ed.), *The international encyclopedia of communication research methods*. Wiley-Blackwell.
- Mardis, M. A. (2019). *Putting the career in college and college readiness*. School Libraries Worldwide.
- Martin, G. E., Danzig, A. B., Wright, W. F., Flanary, R. A., & Orr, M. T. (2016). School leader internship: Developing, monitoring, and evaluating your leadership experience.

 Routledge.
- Mayan, M. (2009). Essentials of qualitative inquiry. Routledge. https://doi.org/10.4324/9781315429250

- McCarthy, M. (2015). Reflections on the evolution of educational leadership preparation programs in the United States and challenges ahead. *Journal of Educational Administration*, *53*, 416–438. https://doi.org/10.1108/JEA-03-2014-0045
- McGuinn, P. (2016). From No Child Left Behind to the Every Student Succeeds Act: Federalism and the education legacy of the Obama administration. *Publius*, 46, 392–415.
- Merriam, S. B. (1985). The case study in educational research: A review of selected literature. *Journal of Educational Thought 19*(3), 204–217.
- Merriam, S. B. (1998). *Qualitative research and case study applications in education*. Revised and expanded from "Case Study Research in Education." Jossey-Bass.
- Mertler, C. A. (Ed.). (2019). *The Wiley handbook of action research in education*. John Wiley & Sons.
- Miller, P. V. (2017). Is there a future for surveys? *Public Opinion Quarterly*, 81(S1), 205–212.
- Mobley, C., Sharp, J. L., Hammond, C. C. H., Withington, C., & Stipanovic. (2017). The influence of career-focused education on student career planning and development: A comparison of CTE and non-CTE students. *Career & Technical Education Research*, 42(1), 57–75. https://doi.org/10.5328/cter42.1.57
- Moran, K., & Larwin, K. H. (2017). Building administrator's facilitation of teacher leadership:

 Moderators associated with teachers' reported levels of empowerment. *Journal of Organizational & Educational Leadership*, 3(1), 2. https://digitalcommons.gardner-webb.edu/joel/vol3/iss1/2
- Morse, J. M., Stern, P. N., Corbin, J., Bowers, B., Charmaz, K., & Clarke, A. E. (2016).

 Developing grounded theory: The second generation (Vol. 3). Routledge.
- Newton, P., & Burgess, D. (2016). Exploring types of educational action research: Implications

- for research validity. In *The best available evidence* (pp. 33–46). Brill Sense.
- Nguyen, T. D., & Hunter, S. (2018). Towards an understanding of dynamics among teachers, teacher leaders, and administrators in a teacher-led school reform. *Journal of Educational Change*, 19(4), 539–565. https://doi.org/10.1007/s10833-017-9316-x
- Nicholas, J., & Fleck, J. (2019). Teacher leadership in career and technical education: An integrative comparative analysis. *Workforce Education Forum* (39)1, 64–73. https://doi.org/10.3102/0034654321995243
- O'Donoghue, T., Punch K. (2003) Qualitative educational research in action: Doing and reflecting. Routledge.
- Owusu-Agyeman, Y. (2021). Transformational leadership and innovation in higher education: A participative process approach. *International Journal of Leadership in Education*, 24(5), 694–716.
- Öznacar, B., & Dericioğlu, S. (2017). The role of school administrators in the use of technology.

 Eurasia Journal of Mathematics, Science and Technology Education, 13(1), 253–268.

 https://doi.org/10.12973/eurasia.2017.00615a
- Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015).
 Purposeful sampling for qualitative data collection and analysis in mixed method
 implementation research. *Administration and Policy in Mental Health*, 42(5), 533–544.
 https://doi.org/10.1007/s10488-013-0528-y
- Park, K., & Johnson, K. (2019). Job satisfaction, work engagement, and turnover intention of CTE health science teachers. *International Journal for Research in Vocational Education and Training*, 6(3), 224–242. https://doi.org/10.13152/IJRVET.6.3.2

- Parameswaran, U. D., Ozawa-Kirk, J. L., & Latendresse, G. (2020). To live (code) or to not: A new method for coding in qualitative research. *Qualitative Social Work*, 19(4), 630–644. https://doi.org/10.1177/1473325019840394
- Passarella, A. (2018). The necessary components of an effective career and technical education (CTE) program [Policy brief]. Institute for Education Policy, John Hopkins School of Education.
- Patton, M. (1990). Qualitative evaluation and research methods. Sage.
- Patton, M. Q. (2002). Two decades of developments in qualitative inquiry: A personal, experiential perspective. *Qualitative Social Work, 1*(3), 261–283. https://doi:10.1177/1473325002001003636
- Patton, M. Q. (2015). Qualitative research & evaluation methods: Integrating theory and practice (4th ed.). Sage.
- Peckham, S. (2014). CTE educators and students urge Congress to increase support. *Tech Directions*, 79(9), 6.
- Perrone, F., & Tucker, P. D. (2019). Shifting profile of leadership preparation programs in the 21st century. *Educational Administration Quarterly*, *55*(2), 253–295. https://doi.org/10.1177/0013161X18799473
- Phillippi, J., & Lauderdale, J. (2018). A guide to field notes for qualitative research: Context and conversation. *Qualitative Health Research*, 28(3), 381–388. https://doi.org/10.1177/1049732317697102
- Prasad, V. (2017). Designing and implementing an evaluability assessment of a career-technical education program as the first step towards validating program effectiveness: A case study of Toledo Technology Academy [Doctoral dissertation, University of Toledo].

- Pratt, M. G., Kaplan, S., & Whittington, R. (2020). Editorial essay: The tumult over transparency: Decoupling transparency from replication in establishing trustworthy qualitative research. *Administrative Science Quarterly*, 65(1), 1–19. https://doi.org/10.1177/0001839219887663
- Reed, L. C., & Swaminathan, R. (2016). An urban school leader's approach to school improvement: Toward contextually responsive leadership. *Urban Education*, *51*(9), 1096–1125.
- Reese, S. (2010). A leading role for career guidance counselors. *Techniques: Connecting Education and Careers*, 85(7), 16–19. https://files.eric.ed.gov/fulltext/EJ888183.pdf
- Ridder, H. G. (2019). Case study research: Approaches, methods, contribution to theory. Rainer Hampp Verlag.
- Riley, T. A. (2013). Paradigm shift from administration of career and technical education programs to leadership. *Review of Higher Education & Self-Learning*, 6(22).
- Ritchie, J., Lewis, J., Nicholls, C. M., & Ormston, R. (Eds.). (2013). *Qualitative research* practice: A guide for social science students and researchers. Sage.
- Rogers, R. H. (2018). Coding and writing analytic memos on qualitative data: A review of Johnny Saldaña's *The Coding Manual for Qualitative Researchers*. *Qualitative Report*, 23(4), 889–892. https://doi.org/10.46743/2160-3715/2018.3459
- Rosenbaum, J. E. (2001). Beyond college for all: Career paths for the forgotten half. Russell Sage Foundation.
- Sagor, R. D., & Williams, C. (2016). The action research guidebook: A process for pursuing equity and excellence in education. Corwin Press.

- Saeger, K. (2017). Career and technical education: The solution for preparing today's youth for college and career. *CTE Journal*, *5*(2), 2–6.
- Saldaña, J. (2011). Fundamentals of qualitative research. Oxford University Press.

https://www.thectejournal.com/uploads/1/0/6/8/10686931/saegar.pdf

- Sambolt, M., & Blumenthal, D. (2013). *Promoting college and career readiness: A pocket guide* for state and district leaders. American Institutes for Research.
- Sebastian, J., & Allensworth, E. (2012). The influence of principal leadership on classroom instruction and student learning: A study of mediated pathways to learning. *University Council for Educational Administration*, 10, 626–663. https://doi.org/10.1177/0013161X11436273
- Seifert, C. (2019). CTE, technology and vocational education opportunities: A comparison of past and present programs for student engagement and success [Doctoral dissertation, Indiana State University]. ProQuest.
- Shaked, H., & Schechter, C. (2018). Systems thinking among enrollees in a principal preparation program. *Journal of Research on Leadership Education*, 13(3), 259–282. https://doi.org/10.1177/1942775118771384
- Shumer, R., & Digby, C. (2012). The future of CTE: Programs of study. *Techniques: Connecting Education and Careers*, 87(1), 36–39.
- Silva, J. M., & Snellman, K. (2018). Salvation or safety net? Meanings of "college" among working-and middle-class young adults in narratives of the future. *Social Forces*, 97(2), 559–582. https://doi.org/10.1093/sf/soy050
- Skarbek, D. (2020). Qualitative research methods for institutional analysis. *Journal of Institutional Economics*, 16(4), 409–422. https://doi.org/10.1017/S174413741900078X

- Smith, D. J. (2017). Implications for policy and practice: Summary of the volume and lessons for the future of CTE programs and STEM. *New Directions for Community Colleges*, 2017(178), 91–95. https://files.eric.ed.gov/fulltext/EJ1276380.pdf
- Smith, M. A. (2017). Lives in transition: The impact of career and technical education on underserved high school students' career growth and development [Doctoral dissertation, Florida Atlantic University]. ProQuest.
- Spradley, J. P. (2016). *Participant observation*. Waveland Press.
- Stake, R. E. (1995). The art of case study research. Sage Publications.
- Stern, P. N., & Porr, C. J. (2017). Essentials of accessible grounded theory. Routledge.
- Stevens, A. H. (2018). What works in career and technical education (CTE)? A review of evidence and suggested policy directions. Aspen Institute: Economic Strategy Group.

 https://www.aspeninstitute.org/wp-content/uploads/2019/01/1.2-Pgs-40-54-What-Works-in-Career-and-Technical-Education.pdf.
- Stipanovic, N., Stringfield, S., & Witherell, E. (2017). The influence of a career pathways model and career counseling on students' career and academic self-efficacy. *Peabody Journal of Education*, 92(2), 209–221. https://doi.org/10.1080/0161956X.2017.1302217
- Stone, J. R. (2013). If programs of study are the solution, what is the problem? *International Journal of Educational Reform*, 22, 294–312.

 https://doi.org/10.1177/105678791302200402
- Stone, J. R., & Lewis, M. V. (2012). *College and career ready in the 21st century: Making high school matter*. Teachers College Press. https://doi.org/10.1080/15582159.2013.789309

- Stringer, E. E., Dick, B., & Whitehead, J. (2019). Worldwide perspectives on action research in education. *Wiley Handbook of Action Research in Education*, 97. https://doi.org/10.1002/9781119399490.ch5
- Stubbs, S. A., & Stubbs, J. A. (2017). Strategies used to enable CTE programs to be high performing in Kentucky. *Research in Higher Education Journal*, 33.
- Tas, S. (2017). The effect of vocational high school administrators' leadership behaviors on teacher job satisfaction. *Universal Journal of Educational Research*, 5(11), 2092–2100. https://doi.org/10.13189/ujer.2017.051126
- Taylor, G. A. J., & Blake, B. J. (2015). Key informant interviews and focus groups. *Data Analysis*, 153–165. https://doi.org/10.3389/fpos.2021.698431
- Thessin, R. A., Scully-Russ, E., Hildreth, J., & Lieberman, D. S. (2018). Key features to inform student outcomes: Learning from a high school healthcare education program.

 *International Journal of Educational Reform, 27(2), 185–211.

 https://doi.org/10.1177/105678791802700205
- Vaughan, M. (2019). The body of literature on action research in education. *Wiley handbook of action research in education*, 53. https://doi.org/10.1002/9781119399490.ch3
- von Stumm, S. (2017). Socioeconomic status amplifies the achievement gap throughout compulsory education independent of intelligence. *Intelligence*, 60, 57–62. https://doi.org/10.1016/j.intell.2016.11.006
- Wai-Ling Packard, B., Leach, M., Ruiz, Y., Nelson, C., & DiCocco, H. (2012). School-to-work transition of career and technical education graduates. *Career Development Quarterly*, 60(2), 134–144. https://doi.org/10.1002/j.2161-0045.2012.00011.x

- Ward, S., & Graham-Brown, C. (2018). Shared leadership on a career and technical education campus. School Leadership Review, 13(1), 38–47.
 https://doi.org/10.4337/9781788977159
- Welton, A. D., & Martinez, M. A. (2014). Coloring the college pathway: A more culturally responsive approach to college readiness and access for students of color in secondary schools. *Urban Review*, 46, 197–223. https://doi.org/10.1007/s11256-013-0252-7
- Whitehead, J. (2019). The underlying importance of context and voice in action research. In Wiley handbook of action research in education (Chap.10, 207–228). Wiley Online Library. https://doi.org/10.1002/9781119399490.ch10
- Williams, S. M., & Welsh, R. O. (2017). ESSA and school improvement: Principal preparation and professional development in a new era of education policy. *Journal of School Leadership*, 27(5), 701–724. http://dx.doi.org/10.1177/105268461702700505
- Wise, R., Blomstedt, M., & Foor, R. (2019). Rethinking career education in Nebraska. *State Education Standard*, 19(3), 19–23. https://files.eric.ed.gov/fulltext/EJ1229650.pdf
- Woodside, A. G. (2010). *Case study research: Theory, methods and practice*. Emerald Group Publishing.
- Xing, X., Shaw, S., & Gordon, H. R. (2017). Quality indicators guiding secondary career and technical education programs of study. *Journal of Research in Technical Careers*, 1(2), 47. https://doi.org/10.9741/2578-2118.1012
- Yates, J., & Leggett, T. (2016). Qualitative research: An introduction. *Radiologic Technology*, 88(2), 225–231. https://pubmed.ncbi.nlm.nih.gov/27837140

- Yazan, B. (2015). Three approaches to case study methods in education: Yin, Merriam, and Stake. Qualitative Report, 20(2), 134–152. https://doi.org/10.46743/2160-3715/2015.2102
- Yin, R. K. (2003). Case study research: Design and methods (3rd ed.). Sage.
- Yin, R. K. (2017). Case study research and applications: Design and methods. Sage.
- Yoon, S. Y., & Strobel, J. (2017). Trends in Texas high school student enrollment in mathematics, science, and CTE-STEM courses. *International Journal of STEM Education*, 4(1), 9. https://doi.org//10.1186/s40594-017-0063-6
- Yost, D. M., Conrad, M., Watkins, L., Parr, K., & Gordon, H. R. (2019). A pilot survey of a self-efficacy tool for career and technical education administrators. *Journal of Leadership Education*, 18(3). https://journalofleadershiped.org/jole_articles/a-pilot-survey-of-a-self-efficacy-tool-for-career-and-technical-education-administrators/
- Yu, C., & Prince, D. L. (2016). Aspiring school administrators' perceived ability to meet technology standards and technological needs for professional development. *Journal of Research on Technology in Education*, 48(4), 239–257. https://doi.org/10.1080/15391523.2016.1215168
- Yücesoy, Y., Demir, B., Bağlama, B., Baştaş, M., & Öznacar, B. (2020). Secondary education teachers and school administrators' views on positive organizational climate. *Near East University Online Journal of Education*, *3*(1), 12–21.

 https://doi.org/10.32955/neuje.v3i1.188
- Zinth, J. D. (2013). Career/technical education: Not your father's vocational education. *Progress of Education Reform*, (14)1. https://files.eric.ed.gov/fulltext/ED542108.pdf

Zirkle, C. J., & Jeffery, J. O. (2017). Career and technical education administration:

Requirements, certification/licensure, and preparation. Career and Technical Education

Research, 42(1), 21–33. https://doi.org/10.5328/cter42.1.21

Appendix A: Invitation to Participate in the Study

Dear Invitee,

My name is Adrian Eaglin. I am a doctoral student at Abilene Christian University. I am respectfully requesting your participation in a doctoral research study that I am conducting titled: CTE Administration: Assumed or Developed? The intention of this descriptive, qualitative case study is to determine the efficacy and development of CTE Program Administration in various secondary campuses in this school district.

Your supervisor has already been contacted to secure permission for your participation in this study. I formally requested permission to contact you to ask that you consider participation in this study, both from your campus principal, and from the Executive Director of CTE for your school district.

Participation in this study involves completing basic demographic information in the form of a brief questionnaire, participation in an interview, and, possibly, but not for all participants, participation in a focus group of select study participants.

Participation is completely voluntary, and you may withdraw from the study at any time. Participants in this study will have 100% confidentiality from the conductor of the study, so no one, outside of the one conducting the survey, will ever know that you participated in the study, or the details of the feedback you provide.

If you would like to participate in the study, please click on, read, and sign the Informed Consent letter, via the attached link.

Your participation in the research may be of great importance to assist in informing next steps regarding CTE Program Administration development, both on your campus, and, possibly, throughout the secondary level campuses in this school district.

I thank you for your time and for your participation, should you participate in this study. Feel free to reach out to me directly, should you have any questions or concerns.

Sincerely,

Adrian L. Eaglin,

Adrian L. Eaglin, M.Ed

Principal Investigator, Doctoral Student

Abilene Christian University

Links

Informed Consent Form

Appendix B: Informed Consent Form

Institution: Abilene Christian University

Title of Project: Effective CTE Administration: Assumed or Developed?

Principal Investigator: Adrian L. Eaglin

Participant's Printed Name: _____

INTRODUCTION

You are invited to take part in a research study entitled Effective CTE Administration: Assumed or Developed? This study seeks to shed light on the CTE Administration development practices at your campus.

Taking part in this study is entirely voluntary. You are encouraged to discuss any questions about this study with your colleagues in the CTE Department on your campus and/or your campus administrators. Take your time to make your decision. If you decide to participate, you must sign this form to show that you want to take part.

PURPOSE OF THE RESEARCH

You are being offered the opportunity to take part in this research study because you are a current CTE teacher at your campus. The purpose of this qualitative case study is to examine the quality and effectiveness of existing CTE program administration in your campus, from the perspectives of the current CTE personnel of your campus.

PROCEDURES

The procedures of this study include but are not limited to a questionnaire, an interview (via Zoom), and possibly a focus group discussion. None of these procedures are experimental in nature.

TIME DURATON OF THE PROCEDURES AND STUDY

Should you agree to take part in this study, your involvement will last approximately one hour. You will be asked to complete a questionnaire, to be interviewed, and to possibly take part in a subsequent focus group discussion. Participation in all aspects of these processes will take approximately one hour.

POTENTIAL RISKS ASSOCIATED WITH PARTICIPATION

There are no known risks associated with participation in this study. Your participation, through every procedure, will be strictly confidential.

A potential discomfort of participation in this study is the knowledge that you may be asked to provide information that may feel/seem critical of the current administration of your campus. All feedback provided in this study will be strictly confidential. No participant or non-participant will ever be privy to any feedback provided by study participants, except the Principal Investigator. Additionally, all interview transcripts will be destroyed once the information is coded.

POTENTIAL BENEFITS ASSOCIATED WITH PARTICIPATION

Possible Benefit(s) to Participants

• The results of this research will not directly benefit any study participant.

Possible Benefit(s) to Others

• The results of this research may guide the future development of CTE administrators at another campus in your school district.

STATEMENT OF CONFIDENTIALITY

Privacy and Confidentiality Measures

Your participation in this study is 100% confidential, and no research records that are reviewed, stored, and/or analyzed by Abilene Christian University will have any identifiable information of any study participants.

All transcripts of interviews and focus group discussions will be destroyed after they are coded. Transcription and coding will be carried out by the Principal Investigator, and no identifiable information of study participants will be attached to these transcripts.

In the event of any publication or presentation resulting from the research, no personally identifiable information will be shared.

COSTS/COMPENSATION FOR PARTICIPATION

There are neither costs nor compensation associated with participation in this study.

VOLUNTARY PARTICIPATION

Taking part in this research study is voluntary. You do not have to participate in this research. If you choose to take part, you have the right to stop at any time.

Throughout the research, you will be provided with any significant new findings that may affect your willingness to continue participating in this research.

CONTACT INFORMATION FOR QUESTIONS OR CONCERNS

You have the right to ask any questions you may have about this research. If you have questions, complaints, or concerns or believe you may have developed an injury related to this research, contact Adrian Eaglin, Principal Investigator, at xxx-xxx.

If you have questions regarding your rights as a research participant or if you have concerns or general questions about the research, please contact the research subjects' protection advocate in the Abilene Christian University Office of Research at (325-674-2885). You may also call this number if you are unable to reach the Principal Investigator or if you wish to talk to someone else.

SIGNATURE AND CONSENT/PERMISSION TO BE IN THE RESEARCH

Before making the decision regarding participation in this research, you should have:

- Reviewed the information in this form
- Had the opportunity to ask any questions you may have

Your signature below means that you have received this information, have asked the questions you currently have about the research, and have received answers to those questions. You will receive a copy of the signed and dated form to keep for future reference.

Participant: By signing this consent form, you indicate that you are voluntaril take part in this research.	ly choosing to
Participant's Printed Name:	
Participant's Signature:	
Date:	

Appendix C: CTE Personnel Questionnaire

Your direct supervisor has granted consent for you to participate in the study associated with this questionnaire. All responses provided on this questionnaire will be confidential. Please take time to answer the questions below. Should your responses make you an ideal candidate for se by

disclos study j	sure agr prior to ee to rea	n the study, you may be contacted with an informed consent form and a non- reement (NDA), both of which must be signed and received by the director of this your participation in the study. Should you have any questions or concerns, please ach out to the director of the study directly, either by phone, at xxx-xxx-xxxx, or by xxxxxxxx).		
Please	answe	r yes (Y) or no (N) to each question. Please circle your response.		
Y	N	I currently serve as a CTE personnel member (CTE teacher, CTE Counselor, CTE		
Progra	ım Adm	ninistrator or CTE Central Administration staff member.		
Y school	N year.	I served in some level of this capacity prior to the beginning of the 2018-2019		
Y nature	N and/or	I feel qualified to answer questions about my professional beliefs regarding the quality of CTE Program Administration at my campus and/or in this district.		
Y Progra	N nm Adm	I am willing to participate in a study describing the nature and/or quality of CTE ninistration at my campus and/or in this district.		
Y should		I understand that my participation in this study is completely voluntary and, se to participate in this study, my responses will be 100% confidential.		
Poten	tial Stu	dy Participant Name (Printed)		
Potential Study Participant Name (Signed)				

Date	

Please print and sign your name, date your signature, and email this form back to me (at xxxxxxxxxxx), signifying your availability and willingness to participate in this study. Should you be selected for participation in this study, you will be notified in writing within three (3) business days of receipt of this signed and dated form. Thank you so much for your time. Sincerely,

Adrian L. Eaglin, M.Ed Doctoral Student Abilene Christian University

Appendix D: Baseline Interview Guide

The interview portion of this study will be divided into four (4) main questions, with several follow-up questions to delve more deeply into the details of the main questions. Interviews will be held via Zoom. The verbal responses given will be transcribed by the Zoom program software, and transcriptions will be destroyed by the conductor of the study once coding has taken place. The nonverbal responses given will be recorded via memos, and this data, once coded, will also be destroyed. Information provided in this interview is purely for data-gathering purposes only, and interview participants will have confidentiality throughout every stage of the study.

Main Question 1: How is the CTE program administrator at your campus partnering, or not, with CTE personnel (CTE counselor and CTE teachers) and students?

Do you believe academic and socioemotional needs of CTE students are being met?

Possible Follow-Up Questions:

- How often does the CTE program administrator touch base with CTE personnel to discuss the academic progress of the students in their CTE courses?
- How often does the CTE program administrator touch base with CTE personnel to discuss the academic and/or socioemotional needs of their students?
- To the best of your knowledge, how often does the CTE program administrator touch base with CTE students to discuss their academic progress in their CTE courses?
- To the best of your knowledge, how often does the CTE program administrator touch base with CTE students to discuss their socioemotional needs in their CTE courses?
- To the best of your knowledge, how often does the CTE program administrator touch base with CTE students to discuss their potential next steps (post-high school graduation)?

Main Question 2: How is the CTE program administrator at your campus partnering, or not, with CTE personnel to expand student enrollment?

Possible Follow-Up Questions:

- Describe the level to which you feel the CTE program administrator <u>intentionally</u> <u>provides for CTE courses?</u>
- How is that intentionality capitalized upon, <u>or not</u>, to ensure CTE program growth and development?
- Describe the level to which you believe intentionality is fostered with current CTE students, in their CTE coursework selection?
- How does this intentionality/lack of intentionality impact current CTE students?
- Describe the level to which you believe intentionality is fostered with potential/future CTE students?
- How does this intentionality/lack of intentionality impact CTE program growth?

Main Question 3: How is the CTE program administrator at your campus partnering, or not, with CTE personnel to assess whether professional contributions to the school are valued, celebrated, and/or appreciated?

Possible Follow-Up Questions:

- How do CTE personnel feel about the demands of their work?
- How is the work balanced for CTE personnel?
- Do you believe CTE personnel feel undervalued, underappreciated, and/or undercelebrated?
- If so, how so? If not, how are they made to feel valued, appreciated, and/or celebrated?
- How does the CTE program administrator utilize T-TESS to gauge CTE instruction?
- How does the CTE program administrator utilize T-TESS to provide feedback to the CTE teachers that could ensure CTE teachers feel valued, appreciated, and/or celebrated?

Main Question 4: How is the CTE program administrator at your campus partnering with CTE personnel to ensure, or not, that CTE students have adequate opportunities for technical training, career exploration, and career advancement while enrolled in CTE courses?

Possible Follow-Up Questions:

- How does the CTE program administrator promote student awareness, or not, about career tracks?
- Describe steps the CTE program administrator takes about student awareness?
- Describe how the CTE program administrator either facilitates and/or encourages jobplacement partnerships with school community members or not?

 Describe how the CTE program administrator facilitates and/or encourages partnerships with school community members that work and/or provide employment in CTE career tracks for mentorship for current and/or potential CTE students?

Appendix E: Baseline Interview (BI) Questions

The baseline interview will have 17 open-ended questions. Depending on the response provided by each interviewee there may be unscripted, follow-up questions asked. Each interview will be recorded, coded, and transcribed, with transcriptions being destroyed following the data analysis stage of the study.

- Question 1: What would you list as the main components of a successful CTE program?
- Question 2: Do you believe your current professional context possesses these components? Please expand on your answer.
- Question 3: To what do you attribute the success or failure of a CTE program in this district?
- Question 4: How might a CTE program administrator impact CTE programming in this district? Please expand on your answer and be specific.
- **Question 5:** What do you believe are the main characteristics of an effective CTE administrator? Please be specific.
- Question 6: Describe how a potential CTE administrator is selected in this district?
- Question 7: Do current CTE teachers have any input on the selection/appointment of future CTE administrators in this district? If so, please describe how so. If not, please explain, to the best of your ability, why not.
- **Question 8:** In your opinion, how should a potential CTE administrator be selected in this district?
- Question 9: To your knowledge, what training does this district provide for current and/or potential CTE administrators? Please be specific.
- Question 11: To your knowledge, what accountability measures and/or stopgaps are in place to ensure successful CTE programs in this district? Please be specific.

- Question 12: In your opinion, is this district assuming effective CTE administration, or developing it? Please explain your answer.
- Question 13: How is the CTE program administrator at your campus partnering, or not, with CTE personnel (CTE counselor and CTE teachers) and students to ensure the academic and socioemotional needs of CTE students are being met?
- **Question 14:** How is the CTE program administrator at your campus partnering, or not, with CTE personnel to expand student enrollment?
- Question 15: How is the CTE program administrator at your campus partnering, or not, with CTE personnel to assess whether professional contributions to the school are valued, celebrated, and/or appreciated?
- Question 16: How is the CTE program administrator at your campus partnering with the CTE personnel to ensure, or not, that CTE students have ample adequate opportunities for technical training, career exploration, and career advancement while enrolled in CTE courses?
- Question 17: Describe how the CTE program administrator facilitates and/or encourages
 partnerships with school community members that work and/or provide certifications
 and/or employment in CTE career tracks for mentorship for current and/or potential CTE
 students.

Appendix F: Key Informant In-Depth Interview (IDI) Questions

The interviewees will be contacted via email and phone to secure their agreement to participate in the study. Additionally, the participants will receive a signed confidentiality agreement from the interviewer prior to the start of the interview.

These interview participants will be key informants: senior-level district employees of the district, from the central administration, the executive director of CTE and assistant director of CTE for the district, the principal at the CTEC, campus principals at 3 high school campuses in the district, campus-level CTE program administrators that have been serving in that capacity in the district for 5 years or longer, 1 CTE counselor, and a few select CTE teachers that have taught CTE coursework in the district for 15 years or longer.

The rationale behind choosing these participants for the key informant IDI is to garner insight from people who make the decisions as to how CTE program administrators are selected, developed, undeveloped, utilized, and viewed in the district, from the perspectives of those that recruit, hire, train, and serve as or with them.

The questions will be open-ended, using invitational language, and intended to derive themes from the responses that will be useful in the data analysis stage of this study. The interviews will take place over Zoom, be recorded and transcribed, and, once the data is analyzed, the recording, notes, memos, and anything else related to the interview, will be destroyed (in the data cleaning stage of the study).

Introduction: I appreciate your willingness to help with this study. I have 17 scripted questions to ask you, and, as deemed necessary, I mask as some follow-up questions. It is okay if you do not know the answer to a question. As a reminder, all responses are strictly confidential. No one will have access to the information you provide except myself, as the researcher. Once all interviews are coded and responses are themed and analyzed, all interview transcripts, records, etc. will be destroyed.

If it is okay with you, I will be recording our conversation. The purpose of this is so that I can get all the details but at the same time be able to carry on an attentive conversation with you. I assure you that all your comments will remain confidential. I will be compiling a report which will contain all staff comments without any reference to individuals. If you agree to this interview and the tape recording, please sign say "I agree."

- Please describe your title and role in the district. If necessary, I will ask probing questions to get a more fulsome response regarding the role of the interviewee in the district.
- I am now going to ask you some questions that I would like you to answer to the best of your ability. Again, if you do not know the answer, please say so. Are you ready? Wait for a response in the affirmative.
- Describe or list the criteria for the position of high school assistant principal (AP) in the district.

- What steps would a candidate need to take to meet the criteria for the position of high school AP in the district?
- Describe the offerings in the district that would help an internal candidate meet the criteria for the position of high school AP.
- How does the district develop internal candidates to prepare them for the position of high school AP? It may be necessary to ask for specifics, and to remind the respondents that it is okay if they do not know of any.
- For this study, we will refer to APs as program administrators, or PAs, as they lead specific content area programs, as administrators, on their campus. How does the district determine the content area assignment of a high school AP, meaning which areas a high school AP will serve over as PA?
- What specific training is needed to prepare a candidate for the position of high school AP in the district to serve as the PA for/lead content areas such as math, ELAR, social studies, and/or science?
- How does the district provide training and/or development opportunities for potential PAs that will be tasked with leading content areas such as math, ELAR, social studies, and/or science? It may be necessary to ask for specifics.
- How does the district provide training and/or development opportunities for current PAs that are tasked with leading content areas such as math, ELAR, social studies, and/or science? It may be necessary to explain that this question is asking what the district takes to train and/or develop current PAs, whereas the previous question asked about potential ones. The researcher is seeking insight into what the district does to offer support after the hire/assignment is made.
- How does the position of CTE PA, which is to say a high school AP tasked with leading the content area of CTE, differ from the position of PA from other content areas? It may be necessary to ask for specifics.
- What challenges might a CTE PA face in their role that are different from those with which PAs for other content areas must contend?
- Describe or list the criteria for the position of CTE PA at the high school campuses in this district.

- What steps would a candidate need to take to meet the criteria for the position of CTE PA in this district? It may be necessary to explain the difference between this question and the previous one.
- Describe the training offered in the district that would help an internal candidate meet the criteria for the position of CTE PA? It may be necessary to ask for specifics.
- How does the district provide training and/or development opportunities for current PAs that are tasked with leading the CTE Department of their campus? It may be necessary to ask for specifics.
- What insights can you share about the CTE PA role that I have not asked you about already?
- **Do you have any questions for me? Are you certain?** Answer any questions the respondent might have.

Conclusion: This has been very helpful. Thank you so much for your time and your responses. You are greatly appreciated. Have a great day!

Appendix G: IRB Approval Letter

ABILENE CHRISTIAN UNIVERSITY

Educating Students for Christian Service and Leadership Throughout the World

Office of Research and Sponsored Programs 320 Hardin Administration Building, ACU Box 29103, Abilene, Texas 79699-9103 325-674-2885

April 28, 2022

Adrian L. Eaglin Department of Education Abilene Christian University



Dear Adrian,

On behalf of the Institutional Review Board, I am pleased to inform you that your project titled "Effective CTE Administration: Assumed or Developed?",

(IRB# 22-036) is exempt from review under Federal Policy for the Protection of Human Subjects.

If at any time the details of this project change, please resubmit to the IRB so the committee can determine whether or not the exempt status is still applicable.

I wish you well with your work.

Sincerely,

Megan Roth

Megan Roth, Ph.D. Director of Research and Sponsored Programs