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# CAREER AND TECHNICAL EDUCATION TEACHERS' BELIEFS ABOUT DEVELOPING STUDENTS' MOTIVATION TO WRITE

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# CAREER AND TECHNICAL EDUCATION TEACHERS' BELIEFS ABOUT DEVELOPING STUDENTS' MOTIVATION TO WRITE

by

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# CAREER AND TECHNICAL EDUCATION TEACHERS' BELIEFS ABOUT DEVELOPING STUDENTS' MOTIVATION TO WRITE

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Students in the U.S. write poorly. Although postsecondary and workplace writing expectations continue to rise, writing instruction has largely remained unchanged over time. As a result, student writing outcomes continue to fall below expectations from both an assessment and hirable proficiency standpoint. Career and Technical Education (CTE) provides a unique opportunity to motivate students who are otherwise disengaged in writing (ACTE, 2009). The benefits of helping students develop their writing-self efficacy has well-documented support (Bruning & Horn, 2009; Bandura, 1997; Pajares 2003; Pajares & Valiante, 2006). However, little is known about the writing opportunities provided in CTE classes or CTE teachers' beliefs about their role in developing students' motivation to write.

In order to address these gaps and better describe the shared experiences of CTE teachers and their beliefs about developing students' motivation to write, this study employed an interpretative phenomenological analysis (IPA) methodological approach as described by Smith and Osborn (2013). Using a constructivist lens, the shared life experiences of six CTE teachers, one from each of the six recognized career fields (Agriculture, Food, and Natural Resources; Business, Marketing, and Management;

Communication and Information Systems; Health Sciences; Human Sciences and Education; and Skilled and Technical Sciences) were explored. As a result of implementing IPA protocols for data analysis, four overarching themes emerged. These themes reflected overlapping concepts and included a *driving purpose* behind each CTE teachers' instructional practices, an appreciation for the *uniqueness of CTE*, a declaration that *writing is important*, and articulated *conditions* that are necessary for CTE writing. Findings from this study contribute to the limited understanding of the writing instruction taking place in CTE courses, the affordances CTE may provide to positively impact student writing motivation, and the nature of CTE teacher self-efficacy beliefs and their impact on pedagogical decision-making.

*Keywords:* phenomenology, interpretative phenomenological analysis, career and technical education, self-efficacy, writing self-efficacy, teacher beliefs.

# DEDICATION

This manuscript is dedicated to my loving grandparents, Sydney and Adele Prince.

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# CHAPTER 1:

# INTRODUCTION

## Statement of the Problem

Students in the United States write poorly. The National Assessment of Educational Progress (US Department of Education) in 2011 found that 73% of 12th graders scored at the "less than proficient" writing level, meaning that they possessed, at best, only partial mastery of the prerequisite knowledge and skills considered to be fundamental for their grade level. Further, American workforce leaders highlight a misalignment between labor market and workforce demands and the expectations and skills being taught in K-12 classrooms. Vannest (2016) reported that more than two-thirds of the salaried jobs in the U.S. require a "substantial" amount of written communication, and that the need for remediation requires companies to invest more than $3 billion annually in training to improve the writing abilities of their employees. This economic impact extends beyond training expenses, as the Association for Career and Technical Education (ACTE) reported in 2009 that adults with lower literacy skills are less likely to participate in the labor force, vote, or be engaged in their children's education. These individuals also earn lower weekly and annual salaries, are more likely to rely on public assistance programs, and be incarcerated (ACTE, 2009).

Hart Research Associates (2015) surveyed over 400 employers whose organizations employ at least 25 individuals to determine what they believed to be the most important learning outcomes for college students to achieve in order to be successful in today's economy, how prepared they believed recent graduates are in those areas, and the importance of applied learning. Results showed that two of the skills

prioritized most among employers when making hiring decisions are "the ability to effectively communicate in writing" (82%) and "the ability to apply knowledge and skills to real-world settings" (80%). Of particular concern, 65% of employers did not feel graduates were well prepared to communicate in writing effectively, and more than half did not feel graduates could apply knowledge and skills to the real world successfully. This seemingly demonstrates a shortcoming or misalignment of the current writing instruction happening in today's K-12 schools.

So why is it that writing instruction provided to students and students' readiness to effectively communicate in writing is ostensibly ineffective? One possible explanation is that for many students, writing instruction only takes place in the English/language arts classroom. Often, the genres of writing taking place in these classes is of very little interest to students (e.g. a literary analysis of 19th century Victorian fiction), where they know or care very little about the topic, or do not see future utility in the skills being taught (Bruning & Horn, 2000; Pajares, 2003; Pajares & Johnson, 1994; Pajares and Valiante, 2006). Further, if students have an interest in pursuing a technical or skilled trades occupation in their future (e.g. computer programmer, electrician, or phlebotomist), writing might seem like a very disconnected skill, even when it is not.

The landscape of writing instruction in today's public schools is what one might expect given the No Child Left Behind (No Child Left Behind [NCLB], 2002) high-stakes testing era of the early 2000s. No Child Left Behind (NCLB, 2002), now amended with the Every Student Succeeds Act (Every Student Succeeds Act [ESSA], 2015) was highly controversial for the severe penalties it placed on schools that did not show sufficient improvement on standardized assessments, with some student attainment

targets intentionally set at an unreachable 100%. McCarthey (2008) reported teachers during this time felt pressured to primarily focus on test preparation, rather than developing and providing students with authentic writing experiences. Sadly, these methods did not result in a demonstration of increased student achievement, as students are still exiting high school writing below expected proficiency levels of both states and employers (Hart Research Associates, 2015; US Department of Education, 2011).

There is an age-old saying in education, "what gets tested, gets taught." Contrary to the skills identified as being essential for postsecondary and workforce success (often referred to as College and Career Readiness skills and 21st Century skills), and savvy teachers trying to align their instruction with identified best practices, today's classroom teachers often still emphasize pro-forma writing for test preparation meant primarily to serve academic purposes only (ACTE, 2009; Beil & Knight, 2007).

While most state English/language arts content area standards include writing for multiple purposes and audiences, too often classroom writing assignments are focused on styles and purposes students do not see as relevant to them (Bruning & Kauffman, 2016). Further, formal literacy instruction often ends for most students around middle school, which only increases the need for support to master complex subject-matter texts (ACTE, 2009). Though there have been several attempts at teaching writing embedded into a content area (Graham & Perrin, 2007; Heller & Greenleaf, 2007), more often than not, writing instruction is left up to the English teacher and writing skills are taught content-agnostically. In other words, writing instruction is not utilized as a means of learning new academic content, but a separate skill to be taught on its own. As a result, many students are not engaged, their interest in the task is low, they have minimal motivation to write,

and their confidence in their ability to effectively communicate in writing is low (Beil & Knight, 2007, Jeffery & Wilcox, 2014). Ultimately, the outcome is that many students do not learn to write well enough to find success in college and later in their career. Writing instruction has a relevancy challenge. Most writing assessments (i.e. ACT, SAT) are poorly connected to the real world of students. This disconnect is not setting students up for success, as "skills cannot be gained absent content – and content is not very useful without the skills necessary to transfer and use that knowledge in a range of settings" (Achieve, 2015, p.6). However, there is a solid foundation in most high schools from which this enhanced, content-embedded writing and writing instruction seems possible – career and technical education.

**Career and Technical Education**

Career and Technical Education (CTE) courses provide a potentially rich setting to embed contextualized writing instruction as the content areas around which instruction is focused are aligned with students' interests. These courses seemingly provide many affordances for developing students' motivation to write and writing expertise, such as high levels of topic knowledge, student interest in the topic, authentic purposes and audiences for which to write (ACTE, 2009; Bereiter & Scardamalia, 1987; Bruning & Horn, 2000; Flower & Hayes, 1981). CTE is a wide-ranging school reform movement originally established in 1917 when Congress passed the Smith-Hughes National Vocational Education Act (Smith-Hughes Act, 1917), providing for the first time federal funds for vocational education. Today, CTE aims to provide all students the academic and technical skills needed to succeed in the United States' shrinking and underprepared workforce (AdvanceCTE, 2020; Daggett, 2010).

In the early 1900s, vocational education arose as a response to the workforce needs of the growing industrial era and was designed to provide job-specific skill training to individuals to help drive the nation's economy throughout the 20th century. By the 1980s there was somewhat of a 'new vocationalism' effort recognizing that traditional, occupationally focused instruction did not equip students with the academic skills necessary for long-term career advancement and life success (Lewis, 1998, Lynch, 2000, Wonacott, 2003). Publications such as *A Nation At Risk* (United States, 1983) stressed the importance of U.S. students' academic fitness and global competitiveness, which led to efforts to integrate academics into technical coursework (Lynch, 2000). More recently, due in part to concerns about the inadequate skills of recent graduates entering the workforce, including those with associate's and bachelor's degrees, there has been an increased focus on improving the career readiness of all students. Today, vocational education has been completely transformed into comprehensive career and technical education. This is not a new label for the same system, rather, it is a completely new system.

Today's CTE programs reflect the modern workplace and prepare learners for a wide range of high-wage, high-skill, in-demand fields (e.g. biomedical, renewable energy, nanotechnology, engineering, law enforcement, entrepreneurship, teaching, logistics, and information technology). Most careers require some form of postsecondary education and training (Carnevale, Strohl, Ridley, & Gulish, 2018), thus today's high-quality CTE programs incorporate rigorous academic and technical standards, as well career readiness skills (often referred to as "soft skills") such as problem solving, teamwork, and communication (including written communication). Schools and

community colleges are incentivized to offer CTE programs that align with local, regional, and statewide workforce priorities (e.g. healthcare in most regions around the country), and students are able to enroll voluntarily into these programs which are often reflected on student transcripts as elective credits (in high school).

CTE programs help students find their passions and "bolster their confidence and empower them to succeed" (Nebraska Department of Education, 2019, p3). According to a report authored by the Institute for the Future for Dell Technologies (2017), about 85% of the jobs today's students will hold have not been invented yet. High-quality CTE programs help learners develop a well-rounded set of academic, technical, and career readiness skills so they are able to make successful transitions in an evolving marketplace requiring new and increasingly more sophisticated workplace skills. At the secondary level, CTE is not about helping learners find the one *perfect job*. Rather, CTE is about helping learners explore the many occupational options available to them, develop their interests and skills through authentic learning experiences, and see how their interests, skills, and abilities align with the world of work so they can plan for their next step and the inevitable ones that follow along a career pathway.

A core component of CTE programming is helping learners identify the types of advanced education and training needed for their career of choice. Students are provided opportunities to learn what various professions entail and the skills and training needed to enter and advance within them. Through programs of study (see CTE delivery below), students are able to earn stackable credentials that help them enter and exit the workforce and postsecondary institutions to pursue the advanced skills they need in order to advance in their career (for instance, if a student is interested in becoming a registered nurse, he or

she should have a solid understanding of the training necessary to become a certified nursing assistant (CNA), licensed practical nurse (LPN), and a registered nurse (RN)). With the current total of U.S. student debt ($1.5 trillion) surpassing the debt of credit cards and auto loans combined (Friedman, 2019), a clear understanding of how interests and skills align with the workforce and what type of postsecondary education is needed for a student's career of choice is a key component of CTE and career development.

### *CTE Delivery*

Students participating in CTE complete coursework within a program of study, which describes a non-duplicative sequence of academic and technical coursework that helps them attain a postsecondary degree, industry-recognized certificate, or credential. According to the Strengthening Career and Technical Education for the 21st Century Act (2018), also referred to as Perkins V, programs of study must: (1) incorporate challenging academic standards adopted by a State under the Elementary and Secondary Education Act; (2) address both academic and technical knowledge and skills, including employability skills; (3) progress in specify (beginning with all aspects of an industry or career cluster and leading to more occupation-specific instruction); (4) have multiple entry and exit points that incorporate credentialing; and (5) culminate in the attainment of a recognized postsecondary credential. Opportunities for students to earn dual-credit are also included within programs of study.

Programs of study are the primary delivery mechanism for CTE in Nebraska and are offered in all 244 public school districts in the state. There are currently 65 programs of study available for schools to implement locally. Each program is made up of at least an introductory, intermediate, and capstone course and is aligned with one of six different

career fields: (1) Agriculture, Food, and Natural Resources; (2) Business, Marketing and Management; (3) Communication and Information Systems; (4) Health Sciences; (5) Human Sciences and Education; and (6) Skilled and Technical Sciences. Each career field, if relevant, is then split into various career clusters to further narrow the occupational focus (e.g. the Manufacturing cluster within the Skilled and Technical Sciences career field). See Figure 1.

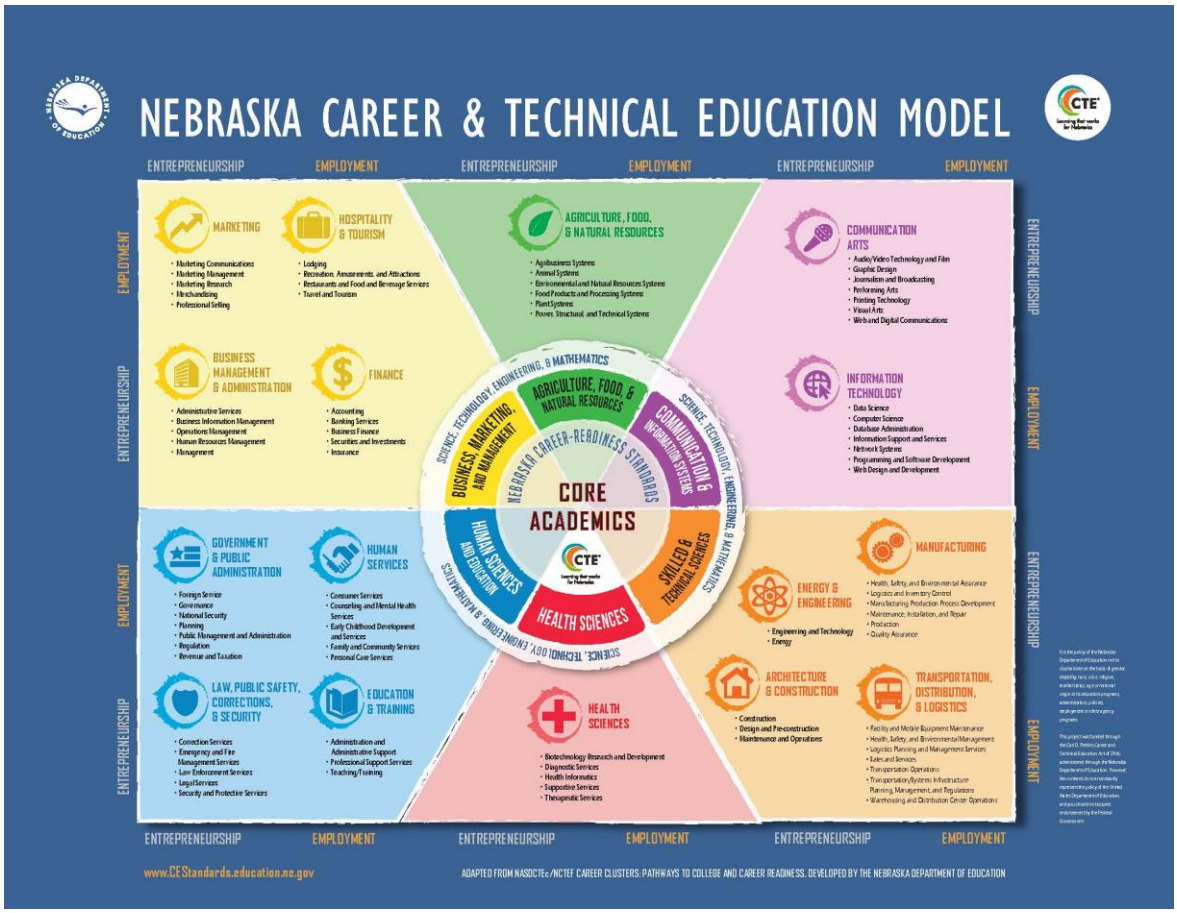


*Figure 1.* Nebraska CTE Model (Nebraska Department of Education, 2020b).

Students are typically introduced to CTE beginning in middle school as part of a school or district's comprehensive career development program. Career development is a lifetime process and includes self-awareness, career exploration, and career planning and management. Once students become increasingly self-aware of their interests, skills, and abilities, early high school provides them opportunities to explore courses in their fields of interest (i.e. computer programming, medicine, animal science, engineering). Through continued career development activities, students are typically prepared in later high school to narrow down their focus and take more advanced CTE courses which align to postsecondary entrance requirements and labor market projections.

Students often experience multiple workplace learning experiences through these programs (i.e. internships, job shadows, work-based learning, apprenticeships) which grant them additional opportunities to enhance their skills (including writing skills) in authentic settings, earn dual-credit, and obtain industry-recognized credentials (e.g. OSHA-10 hour, Microsoft Office, Certified Nursing Assistant). Expanded learning opportunities, such as career and technical student organizations (CTSO) (e.g. FFA, Future Business Leaders of America, DECA, Educators Rising), provide multiple occasions for students to demonstrate their skill acquisition in state- and national-level competitions and hold leadership positions. Despite offering comprehensive programs of study designed to prepare students to successfully transition into postsecondary education and the workforce, in 2018, only 55% of Nebraska high school students who concentrated in a particular occupational area (took three or more CTE courses in a single career cluster) scored proficiently on the state's standardized English/language arts assessment (Nebraska Department of Education, 2020a). Slightly lower than the national

average (US Department of Education, 2020), these scores reflect a concern that, despite conditions seeming to be ripe for enhancing students writing skills, something is still amiss with today's writing instruction.

**Motivation to Write**

CTE provides a unique opportunity to motivate students who are otherwise disengaged in writing (ACTE, 2009). With their rigor, relevance, and rich literacy content, instructors of CTE courses are able to incorporate and apply evidenced-based practices, such as contextualized writing experiences with explicit purposes and audiences, into day-to-day classroom experiences to help students develop motivation to write (ACTE, 2009). These positive experiences may subsequently impact students' self-efficacy for writing. Self-efficacy beliefs represent the confidence one has in his or her ability to successfully perform a task (Bandura, 1995). These beliefs have been considered primary components in motivation as well as personal achievement, as one's willingness to engage in an activity is largely dependent on the belief that his or her actions will lead to successful results (Pajares, 2002). If individuals do not believe they have the capacity to be successful, there is no incentive to even begin working or to persist in the face of difficulties. Given that one of the overarching goals of CTE is to help students transition successfully into postsecondary education and the workforce, the beliefs teachers hold about their role in this work is extremely relevant.

Unfortunately, very little evidence exists that suggests CTE teachers are incorporating real-world writing activities into their courses, or that this is an intentional priority for teachers and administrators. Examining CTE teacher's own beliefs about their role in helping students develop motivation to write might provide valuable insights.

The beliefs teachers hold about their own ability to write and to teach others to write in their content area (i.e. self-efficacy) have been shown to influence the instructional decisions they make (Graham, Harris, Fink, & MacArthur, 2001). The value teachers place on the importance of writing may similarly impact their use of writing activities in classroom instruction (Pajares, 2003; Shell, Murphy, & Bruning, 1989; Wigfield & Eccles, 2000). No studies were identified that explored writing practices in CTE courses specifically, or the influence CTE teachers' beliefs about writing and writing instruction may have on their curriculum-development decisions. Given the potential for CTE to offer a rich context for teaching writing skills and for students to develop motivation to write, it is important to assess the challenges CTE teachers may face when pursing this opportunity. These challenges may range from them lacking the belief they have the skills to teach writing in the context of their area, to the belief their content area does not lend itself to integrating writing into their curriculum. A greater understanding of these beliefs may provide a clearer direction for statewide professional development and supports.

## Purpose of the Study

Although CTE teachers are well positioned to help students develop motivation to write, their beliefs about their role is relatively unknown. With a greater understanding of their perceived role, preservice teacher preparation programs may be able to better focus their efforts and statewide leaders will be better equipped to provide supports and professional development. Therefore, the purpose of this interpretative phenomenological analysis was to explore and describe the beliefs of CTE teachers about their role in developing students' motivation to write.

## Research Questions

The central research question guiding this study was**: How do CTE teachers view their role in developing students' motivation to write?** Interview questions were developed to explore teachers' self-perceptions of their teaching practices as well as probe the construct of writing motivation specifically. Sub-questions included:

SQ1: How do CTE teachers feel their role is unique or differs from those of non-CTE teachers?

SQ2: How confident do participants feel about their own ability to write?

SQ3: How confident do participants feel about their ability to develop students' motivation to write?

SQ4: What are the greatest challenges these CTE teachers face in developing students' motivation to write?

SQ5: How do participants feel they can be further supported to meet these challenges so that they can better accomplish their goals in the classroom?

By engaging veteran CTE teachers across Nebraska who have a solid foundation in teaching their respective content, a deep understanding of the purpose of CTE, and have demonstrated leadership or service to the career field in which they teach, this study probed deeply into the beliefs CTE teachers hold about their role in helping develop students' motivation to write within the context of their content area.

## Definition of Terms

### Career and Technical Education

CTE is a wide-ranging school reform movement that aims to provide all students, regardless of background or circumstance, with the necessary academic and 21st century

occupational skills needed to succeed in the United States' shrinking and underprepared workforce (AdvanceCTE, 2016; Daggett, 2010). The purpose of CTE is to infuse academic and technical skills to afford students the opportunity to gain the knowledge and skills necessary to compete globally by entering into employment directly out of secondary education or continuing on to some form of purposeful postsecondary education (Gentry, Peters, & Mann, 2007).

**Career and Technical Student Organization**

Career and Technical Student Organizations (CTSOs) are expanded learning opportunities that connect classroom instruction to real-world learning experiences. Students are able to demonstrate their skill acquisition in state and national-level competitions and hold school and state-level leadership positions. Classroom teachers serve as CTSO chapter advisors for their schools. Nebraska currently offers seven CTSOs that align with each career field: DECA (Business/Marketing), Educators Rising (Education & Training), Future Business Leaders of America (FBLA – Business), Family, Career, and Community Leaders of America (FCCLA – Human Sciences), FFA (Agriculture, Food, and Natural Resources), HOSA | Future Health Professionals (Health Sciences), and SkillsUSA (Skilled and Technical Sciences).

**Career Field**

A career field represents a broad sector of entrepreneurship and employment to assist with a more manageable delivery of career education. In Nebraska, the CTE Model (see Figure 1) includes six career fields meant to encompass all possible sectors. They include: (1) Agriculture, Food, and Natural Resources, (2) Business, Marketing, and

Management, (3) Communication and Information Systems, (4) Health Sciences, (5) Human Sciences and Education, and (6) Skilled and Technical Sciences.

**Career Cluster**

Each career field is composed of career clusters, which are more specific segments of the labor market. For example, the four career clusters that make up the Business, Marketing, and Management career field include marketing, hospitality and tourism, business management and administration, and finance (see Figure 1).

**Perkins (or Perkins V)**

Perkins V (short for The Strengthening Career and Technical Education for the 21st Century Act) is the "federal education program that invests in secondary, postsecondary, and adult CTE programs in all 50 states, the District of Columbia, and the territories" (Perkins V, 2018). The overarching purposes of the law is dedicated to the continuous improvement and relevance of CTE to meet the ever-changing needs of learners and employers. It has a strong alignment to the Every Student Succeeds Act (ESSA) and the Workforce Innovation and Opportunities Act (WIOA) and focuses on increasing learner access to high-quality CTE programs and programs of study.

**Program of Study**

Under Perkins V (2018), a program of study is "a coordinated, non-duplicative sequence of academic and technical content at the secondary and postsecondary level that: incorporates challenging state academic standards; addresses both academic and technical knowledge and skills, including employability (career readiness) skills; progresses in specificity (beginning with all aspects of an industry or career cluster and leading to more occupation-specific instruction); has multiple entry and exit points that

incorporates credentialing; and culminates in the attainment of a recognized postsecondary credential." Programs of study are the primary delivery mechanism for CTE in Nebraska. There are currently 65 state model programs of study available for implementation. Each are made up of at least an introductory, intermediate, and capstone course.

### Self-Efficacy

Self-efficacy is a motivational construct which is described as "the belief in one's capabilities to organize and execute the courses of action required to manage perspective situations" (Bandura, 1995, p.2). These beliefs have been considered primary components in motivation and personal achievement, as one's willingness to engage in an activity is largely dependent on the belief that his or her actions will lead to successful results (Pajares, 2002). As such, self-efficacy beliefs have also been shown to influence the choices people make, the effort they exert, their perseverance in the face of obstacles, and their susceptibility to stress (Bandura, 1986; 1977).

## Assumptions

There are several assumptions that are pertinent to fully explaining the central phenomena of this study. First and foremost, it is assumed that CTE courses are a fertile ground for embedding contextualized writing instruction that may have positive outcomes on students' motivation. Factors identified in the most prominent cognitive and motivational theories of writing suggest this to be the case, such as the influence of high levels of background knowledge on reducing working memory load while writing, and the positive motivational outcomes of writing with high levels of interest and for authentic purposes and audiences (Bereiter & Scardamalia, 1987; Bruning & Horn, 2000;

Flower & Hayes, 1981). Additionally, some research examining disciplinary literacy has identified CTE as an ideal setting for this purpose (ACTE, 2009; Miller, 2009). Another assumption of this study is that the participants have substantial CTE teaching experience and understand the deep connection between CTE coursework, career development, and career readiness skills (such as writing). This understanding is critical in ensuring students gain all academic and technical skills necessary to successfully transition to postsecondary education and their careers. It is also assumed that the CTE teacher participants are open and honest about their beliefs, teaching practices, and the factors that influence their decisions. It is also assumed that the population sample is reasonably representative of effective CTE teachers within their career field in Nebraska, and the use of the proposed sampling method will yield findings that enhance the collective understanding of the conditions impacting CTE teachers' beliefs about their role in developing students' motivation to write.

## Relevance of the Study

The overarching intent of this study was to contribute to the overall body of knowledge related to best practices in writing pedagogy, teacher beliefs, and CTE. Specifically, this study focused on CTE teachers' perceptions and beliefs about their role in developing students' motivation to write. No research study to date was identified that that explores writing practices in CTE courses specifically, or the influence CTE teachers' beliefs about writing and writing instruction have on their classroom decisions. A greater understanding of these conditions could provide a clearer direction for statewide professional development and supports for all CTE teachers.

With the ongoing emphasis on students meeting core academic standards (in mathematics, science, and reading and writing), students are often discouraged from participating in elective courses (such as CTE) in lieu of additional courses in these critical (tested) areas. CTE courses have historically been overlooked when discussing academics and how they may be leveraged for the same purpose. This study may bring to the fore the potentially strong positive impact embedding writing instruction into CTE courses may have on students' engagement with writing and thus, their writing outcomes.

Fully appreciating the various influences that contribute to CTE teacher's beliefs is an area that has received scant attention. As such, this study additionally has the potential to impact CTE teacher preparation programs and identify the supports needed most by teachers in this area. With a greater understanding of how in-service CTE teachers view their role related to writing and developing students' writing motivation, pre-service teacher programs could not only help enhance these future teachers' own self-efficacy for writing and teaching writing intentionally, but also add to their developing pedagogical content knowledge. This study may also help determine if there are CTE program areas that are particularly well-suited for integrating writing instruction, or, if this is a career readiness skill that is truly ubiquitous.

Finally, Miller (2009) reported that students who do not perform well in school and have low literacy levels often become disengaged from education and may drop out of high school at a higher rate than other students. These students are not only unsuccessful in writing and reading, but in every other content area that relies on these skills for success (ACTE, 2009). In Nebraska, less than .01% of students who concentrated in CTE (took more than three CTE courses in the same career cluster)

dropped out of high school in 2018, and 99% graduated within four years (Nebraska Department of Education, 2020a). In comparison, Nebraska's overall drop-out rate, while still very low, remained around one percent, with 88% of students graduating within four years (Nebraska Department of Education, 2020c). Consequently, this study also has the potential to fill in a much needed gap in our collective understanding of how CTE instructors view their role in helping students develop motivation to write, and, how CTE can potentially be leveraged as a tool to increase student engagement in schools, decrease the likelihood students may drop out, and of course, increase the writing confidence and outcomes of students and teachers.

## Chapter Summary

This first chapter provided an overview to the current state of student writing in the United States. It highlighted the misalignment between employer demands and the skills being taught in K-12 classrooms. Career and Technical Education was introduced as a promising structure already incorporated into all 244 Nebraska school districts to embed contextualized writing instruction, with the potential to lead to increased student writing outcomes. The purpose of the study was described as being focused on CTE teachers' beliefs about their role in developing students' motivation to write. One central question was stated with five sub-questions to help inform underlying components related to the central question. Finally, key definitions important for understanding the context of the environment were then presented in addition to the overarching relevance of the present inquiry.

# CHAPTER 2:

# LITERATURE REVIEW

The purpose of this interpretative phenomenological analysis was to explore and describe CTE teachers' beliefs about their role in developing students' motivation to write. Literature reviewed contributed to this study by providing a greater understanding of teachers' beliefs and their impact on pedagogical decision-making. This literature review is included to highlight studies within the larger context of writing instruction, motivation, and research related to CTE. Additionally, it provides a framework for establishing the study's relevance and future utility (Creswell, 1994).

## Self-Efficacy Theory

Bandura (1995) described self-efficacy as, "the belief in one's capabilities to organize and execute the courses of action required to manage perspective situations" (p.2). More simply, self-efficacy beliefs represent the confidence one has in his or her ability to successfully perform a task. As referenced above, these beliefs have been considered primary components in motivation as well as personal achievement, as one's willingness to engage in an activity is largely dependent on the belief that his or her actions will lead to successful results (Pajares, 2002). If individuals do not believe they have the capacity to be successful, there is no incentive to even begin working or to persist in the face of difficulties. Consequently, self-efficacy beliefs have been shown to have a strong influence on the choices people make, the effort they exert, their perseverance in the face of obstacles, and their susceptibility to stress (Bandura, 1986; 1977). Self-efficacy beliefs may also affect many important aspects related to successful *academic* and *workplace* behavior. Consistent with Bandura's (1995) general view of

self-efficacy (above), Pajares and Johnson (1994) have suggested that *writing* self-efficacy beliefs are not only predictors of performance, but may contribute to students' engagement in a particular writing activity, the effort they put forth, their perseverance through challenging writing tasks, and their cognitive and emotional reactions to writing processes and outcomes.

**Self-Efficacy for Writing**

Research examining self-efficacy and its impact on writing performance has a moderately long history (McCarthy, Meier, & Rinderer, 1985; Pajares, 2003; Pajares & Viliante, 1997, 2006; Shell, Murphy, & Bruning, 1989; Zajacova, Lynch, and Espenshade, 2005; Zimmerman & Bandura, 1994). As mentioned previously, self-efficacy refers to "the belief in one's capabilities to organize and execute the courses of action required to manage prospective situations" (Bandura, 1995, p.2). These judgments are domain specific and can vary amongst a number of contextual factors (Moreno, 2010). Pajares (2003) highlighted the need for research in this area by suggesting that, "students' confidence in their writing capabilities influence their writing motivation as well as various writing outcomes in school" (p.139). Self-efficacy is situated within Bandura's (1986) social cognitive theory, where he posits that behavior in some situations may be better predicted by beliefs about capabilities than what someone is actually capable of doing. Bandura (1997) noted that these self-perceptions mediate what individuals do with the knowledge and skills they have.

As students transition into postsecondary education and the workforce after high school and are presented with new and difficult writing tasks, it is logical to believe that the writing strategies they have learned over the past thirteen or more years of schooling

would facilitate their writing and communicative success. However, because writing purposes vary across content areas, instructors, career fields, industries, and even specific jobs, students may develop beliefs that are misaligned with their actual capabilities. Similarly, instructors may be unaware of the impact their writing assignments may have on their students' motivation to write. The beliefs teachers' have about their role in helping students develop motivation to write may impact their pedagogical decisions. Students' self-efficacy for academic tasks are "vital forces in their success or failure in school" (Pajares, 2003, p. 140). As described earlier, Pajares (2003) noted that judgments of personal efficacy affect many aspects of students' actions, including the choices they make, the effort they expend, and the persistence they exert when faced with obstacles. With every successful writing experience in courses or on the job, however, confidence in future writing abilities may also rise.

As Pajares (2003) emphasized this need for better instructor awareness, he suggested that it is the responsibility of the instructors to help develop their students "competence *and* confidence" (p. 153). With respect to these goals, Bruning and Horn (2000) provided numerous suggestions for helping students develop motivation to write that are directly relevant when creating writing prompts. For instance, they proposed that conditions that enhance motivation include "nurturing functional beliefs about the nature of writing and its outcomes" (p. 27) and "fostering student engagement though authentic goals and contexts" (p. 27). Writing assignments in CTE classes that are contextualized for the content area and for which students self-select based on their future career interests may provide just such a context and goal.

More recently, Bruning, Dempsey, Kauffman, McKim, and Zumbrunn (2013) provided empirical support in a study of middle and high school students for a multifactor representation of writing self-efficacy. Unlike earlier measures that examined writing self-efficacy judgments more globally, their model included three dimensions: ideation, conventions, and self-regulation. Underpinning their research was the hypothesis that writers may view and judge their capabilities in different and recognizable categories. College freshman may encounter various writing prompts and hold different self-efficacy beliefs for each of the three components. This multifactor model creates a foundation for which self-efficacy can be measured when evaluating the impact CTE participation may have on students' writing self-efficacy.

**Student Transitions & Self-Efficacy**

Students making the transition from high school to college or the workplace often struggle with the new and elevated expectations for their writing (Beil & Knight, 2007; Smith, 2010). While self-efficacy for writing skills and writing tasks have been explored in some detail generally (McCarthy, Meier, & Rinderer, 1985; Pajares, 2003, 2007; Pajares & Johnson, 1994, 1996; Pajares & Valiante, 1997; Shell, Murphy, & Bruning, 1989; Zimmerman & Bandura, 1994), there is a dearth of research on both CTE and CTE teacher's beliefs about their role in developing students' motivation for writing.

Even with college and career readiness standards, writing in high school and writing in college and the workplace still differ in many, and sometimes unanticipated, ways (Smith, 2010). This disconnect is unfortunate and underscores many motivational issues students may face while making the transition from high school to college and the workplace. Related to self-efficacy, students may enter college or their job confident in

their abilities given their recent high school graduation, yet quickly become overwhelmed with writing assignments and tasks vastly different from those encountered previously. The lack of explicit detail in many writing tasks could encourage a decline in writing self-efficacy, and thus, impact students' level of engagement and perseverance as described above (Pajares & Johnson, 1994).

The climate of writing early in college is also complicated by the fact that students often report disliking writing assessments as their time commitment is high and the writing processes as a whole is cognitively demanding (Flower & Hayes, 1981; Graham, Gillespie, & McKeown, 2012; Hayes & Bajzek, 1996). These cognitive demands include interpreting information, reflecting on that information, and producing written products. All the while, they are to consider the context of the writing assignment, their audience, their own progress, and adjust their writing as necessary (Graham et al., 2012).

## Writing in CTE Courses

There have been many efforts to incorporate writing into CTE courses (nationally and in Nebraska) though little is known about the writing currently taking place. ACTE reported in 2009 that professional and technical writing (such as documenting laboratory processes, writing memos, completing work logs, preparing case studies, using vocabulary in context, developing resumes, and summarizing project results) were common across CTE curriculum. However, little is known about how these writing activities or genres align with the heightened expectations of employers and higher education, or, the confidence in CTE teachers' ability to incorporate them effectively. Ideally, these writing experiences would represent the features explored above that lead

to high writing self-efficacy, such as ensuring a high level of background knowledge for the topic, having an authentic writing purpose, and selecting a topic that interests the writer. Additionally, these experiences should be aligned with the expectations of employers (both in form and function). With the ubiquitous presence of the Internet and its presence in the everyday lives of today's youth and adults, students need "new alternatives to help them develop and engage their critical thinking and writing skills for this technology-based world" (Harper, 2013, p. 8).

CTE instructors can capitalize on the thinking and writing opportunities students may have in the workplace, classroom, and in their personal lives to develop rich resources for them to strengthen their motivation to write, thus improving their writing skills and learning outcomes (Harper, 2013). While the amount of time teachers spend on writing in the classroom has declined due to demands for more quantitative measures of student success, CTE teachers can encourage students to "think and write in ways that are engaging to them. Purpose, preference, and partnerships are three concepts teachers can use to help students further refine critical thinking and writing skills" (p. 8). When student are able to make real-world connections and find purpose in a writing assignment, it is likely that their engagement and literacy skills will be enhanced (ACTE, 2009). Because students self-enroll into CTE courses, they are more likely to see how their coursework and future goals are connected. Both job-specific vocabulary and authentic work scenarios can help students engage in a writing task that otherwise may have very little meaning to them in another context (ACTE, 2009).

Academic literacy has transitioned from a traditional focus on reading and writing *processes*, to include mathematics, science, social students, and technical content

literacies. This broader focus includes emphasizing critical-thinking, reading, writing, speaking, and listening. With the passage of the Common Core State Standards (CCSS) in 2010, all states (those adopting the CCSS as well as those who chose not to) have generally agreed on a shared set of goals and expectations for students, including a system of education that is: aligned with college and work expectations, comprised of rigorous content and application of knowledge through higher-order thinking skills, internationally benchmarked so that all students are prepared to succeed in our global economy and society, and based on evidence and research (Loveland, 2014). The CCSS and state-developed standards (including Nebraska's) demand that reading and writing literacies be taught in multiple settings, not just in traditional English/language arts classes.

> "Disciplinary literacy is the use of discipline-specific practices to access, apply, and communicate content knowledge. Student expectations are higher than in the tradition of reading and writing in the content area. That model was more generally focused on increasing the reading and writing abilities of low-level readers. The goal for [CTE] teachers is for their students to be able to have rigorous conversations based on textual evidence, be able to access and revisit text for evidence to support their conclusions, and to be able to read, write, and speak like an expert in the field" (Loveland 2014, p. 9).

Disciplinary literacy in CTE is different than in traditional English/language arts classes, as each technical discipline has specialized "ways of thinking, terminology, types of text to comprehend and utilize, and ways of communicating verbally and in written form" (p.9). The terminology in these courses is most likely more technical in nature. Because the various disciplines within CTE acquire, develop, and share knowledge in distinct ways, "these teachers must take ownership for developing robust instruction around discipline-specific literacy skills" (Loveland, 2014, p.9). CTE courses can play a key role in increasing the engagement and achievement of students (ACTE, 2009). More

specifically, CTE teachers can, "expose students to rigorous and relevant information-rich content that motivates them to develop their literacy skills, integrate content-area reading and writing strategies to aid students' learning, and provide numerous enrichment activities to help students apply higher-level literacy skills to their interests and future goals" (ACTE, 2009, p. 1).

## Teacher Self-Efficacy Beliefs

Even with the demonstrated benefits of disciplinary literacy practices, there is a prevailing assumption that CTE teachers feel confident in teaching writing, or even believe it is relevant to their work. These beliefs are paramount to establishing a thriving learning environment which promotes "functional beliefs about writing, fostering engagement using authentic writing tasks, providing a supportive context for writing, and creating a positive emotional environment" (Bruning & Horn, 2000, p. 25). Very few secondary teachers receive formal instruction in teaching students' how to write and are ill-equipped with the necessary strategies to assist their students' in more demanding curriculum (ACTE, 2009).

There have been numerous studies over the past few decades exploring teacher self-efficacy beliefs, or the "confidence that they can perform the actions that lead to student learning" (Graham, Harris, Fink, and MacArthur, 2001). Skaalvik and Skaalvik's (2007) examined teacher self-efficacy by creating a multidimensional teacher-efficacy scale and assessing if various dimensions for self-efficacy existed. They identified six unique but related dimensions of teacher self-efficacy: adapting education to individual students' needs, instruction, cooperating with colleagues and parents, coping with changes and challenges, keeping discipline, and motivating students. Additionally, their

findings supported the strong relationship between teacher self-efficacy and teacher burnout.

Several other studies have explored teacher self-efficacy and its impact on teaching and learning, such as Allinder (1994) who found that high teacher self-efficacy can influence teacher competence and organization in their classrooms by exploring the relationships between the self-efficacy of special education teachers and the instructional practices they use. Studies have also linked teacher self-efficacy to influencing student achievement, encouraging teachers to try new methods, reducing the criticism of teachers to students who make errors, reducing special education referrals, and general feelings of positivity for teaching, and more (Armor, Conroy-Oseguera, Cox, King, McDonnell, Pascal, Pauly, & Zelman, 1976; Ashton, Webb, & Doda, 1983; Bent, Bakx, and den Brok, 2016; Gibson & Dembo, 1984; Fuchs, Fuchs, & Bishop, 1992; Guskey, 1984; Guskey, 1988; Muijs & Reynolds, 2002; Podell & Soodak, 1993, Stein & Wang, 1988; and Tschannen-Moran & Woolfolk Hoy, 2001). As Bandura (1995) asserts that one's confidence in his or her ability to accomplish a goal impacts the choices they make, and the demonstrated benefits of high teacher self-efficacy summarized above, exploring how confident CTE teachers feel about their teaching of writing and developing their student' motivation to write is worthwhile.

There have been few studies specifically addressing teacher self-efficacy related to writing. Graham et al. (2001) confirmed two dimensions of teacher self-efficacy, personal teaching efficacy and general teaching efficacy, through their study validating a teacher efficacy instrument for writing. Helfrich & Clark (2016) studied differences in self-efficacy for teaching literacy between two groups of preservice teachers. Results

demonstrated that regardless of the amount of required literacy-focused courses, preservice teachers were more efficacious about teaching reading than writing. No study found examined CTE teacher self-efficacy, or even more specifically, those teacher's self-efficacy beliefs for their role in developing students' motivation to write in their course(s). Professional development for both in-service and pre-service CTE teachers in this area can help identify and further develop the classroom practices employed to assist students in gaining new vocabulary, technical content, and strategies to enhance their writing skills (ACTE, 2009).

## Chapter Summary

Chapter 2 provided a review of the relevant and available literature related to the central phenomenon. Constructs explored included self-efficacy theory, self-efficacy for writing, student transitions and self-efficacy, writing in CTE courses, and teacher self-efficacy beliefs. The literature review was included to highlight studies within the larger context of writing instruction, motivation, and CTE research. It was also stated that the literature review provided a framework for establishing the study's relevance and future utility.

# CHAPTER 3:

# METHODOLOGY

## Qualitative Methods

Qualitative research methods are used to help understand how people interpret their experiences, how they construct their worlds, and what meaning they attribute to their experiences (Merriam & Tisdell, 2016). Creswell and Poth (2018) posit that:

> Qualitative research begins with assumptions and the use of interpretative/theoretical frameworks that inform the study of research problems addressing the meaning individuals or groups ascribe to a social or human problem. To study this problem, qualitative researchers use an emerging qualitative approach to inquiry, the collection of data in a natural setting sensitive to the people and places under study, and data analysis that is both inductive and deductive and establishes patterns or themes. The final written report or presentation that includes the voices of participants, the reflexivity of the researcher, a complex description and interpretation of the problem, and its contribution to the literature or a call for change (p. 44).

The central inquiry of this study was to describe the unique perspectives of CTE teachers in relation to their role in developing students' motivation to write. This examination used semi-structured interviews and document analysis through a review of various artifacts to allow for the subjective experiences of these individuals to be explored, which aligns directly with the purpose of qualitative methodologies (Merriam & Tisdell, 2016). Employing a qualitative design and approach to this study allowed for robust descriptions of how CTE teachers view their own role in helping students develop motivation to write within the unique context of their content area, and become both college and career ready.

### *Phenomenology*

Phenomenology studies lived experiences – emphasizing the world as lived by someone, not the world as separate from them (Valle, King, & Halling, 1989; van Manen,

1997). Creswell and Poth (2018) further explain that a phenomenological study's aim is to describe commonalities across multiple participants as they experience the phenomenon, so that the "universal essence" of the phenomenon can be described. In this study, the essence of how CTE teachers feel about their role in helping students develop their motivation to write was the phenomenon under review. CTE teachers bring a unique perspective to teaching as their explicit role is to both teach a curriculum inclusive of academic, technical, and employability skills to prepare youth for college and careers – both options, and not one or the other.

Relying heavily on Moustakas' (1994) approach to phenomenological research, Creswell and Poth (2018) have outlined seven defining features of phenomenology. Namely, the primary exploration should be framed around a single concept or idea (phenomenon). The exploration should be conducted with a homogenous group of individuals who have all shared the same lived experience, which can range from three to four individuals all the way up to groups of 10 to 15. The core meaning of the phenomenon should be mutually understood by all members of the group, and the study should begin with a philosophical discussion about the basic ideas involved in the exploration (Creswell and Poth, 2018). This discussion includes those lived experiences and how they refute the subjective-objective perspective. That is, individuals hold both subjective experience of the phenomenon as it relates to their lived experience, as well as an objective experience of having this lived experience in common with other individuals. Because of this, phenomenology rests on a continuum between quantitative and qualitative research.

Another common feature to a phenomenological design is bracketing (Creswell & Poth, 2018). Bracketing requires the researcher to be explicit in their implicit biases, personal judgments, and experiences with the phenomenon so that they can better focus on the lived experiences of the participants. Collecting data by interviewing individuals who have experienced the phenomenon is another defining feature of phenomenology, as is analyzing those data through a process of reduction, or continually returning to the essence of the shared experience to find the structure or meaning of the experience. Moustakas (1994) suggests moving from narrow units of analysis to boarder units, and summarizing *what* individuals experience and *how* they experience it. Finally, Creswell and Poth (2018) suggest that the final defining feature of a phenomenological design is ending the inquiry with a summary of the "essence" of the experience (what participants experienced and how they experienced it). Anyone reading this summary should be able to walk away with the feeling that they understood more fully what the participants experienced. Taken together, using a phenomenological approach for the present study enabled rich descriptions of CTE teachers' beliefs about their role in developing students' motivation to write. To date, no other study has been found that explores this area and with this better understanding, statewide supports may be developed to encourage the practice.

There are several sub-types of phenomenology (Finlay, 2009). One type of phenomenology is hermeneutic phenomenology. Hermeneutic phenomenology is not only concerned with individuals' lived experiences, but also focuses on "illuminating details and seemingly trivial aspects within experience that may be taken for granted in our lives, with a goal of creating meaning and achieving a sense of understanding

(Laverty, 2003, p. 24). van Manen (1990) describes phenomenological research as both a focus on the lived experiences of individuals as well as hermeneutics (the "texts of life"). In this approach, phenomenology, as Creswell and Poth (2018) elucidate, "is not only a description but it is also an interpretive process in which the research makes an interpretation of the meaning of the lived experiences" (p. 78). Another approach to phenomenological research is transcendental phenomenology. In this approach, the focus is less on the interpretations of the researcher and more on descriptions of participants' experiences (Creswell & Poth, 2018). Researchers set aside their own experiences, also known as bracketing, to ensure they do not influence their description of the phenomenon. Data is collected from several individuals who have all experienced the same phenomenon, whose statements and quotes are then used to develop themes which are described in rich textual (what they experienced) and structural (how they experienced it) detail (Creswell & Poth, 2018).

***Interpretative Phenomenological Analysis***

Yet another type of phenomenology is Interpretative Phenomenological Analysis (IPA). IPA is an approach to phenomenology that is characterized by a two-stage interpretation process, or double hermeneutic (Smith & Osborn, 2003). Historically in qualitative research, the viewpoint of the participant (emic) is blended with the viewpoints of the researcher (etic) to acquire understanding about the central phenomenon. While some forms of qualitative research focus mainly on emic descriptions (e.g. Moustakas' transcendental approach), others emphasize the researchers' analysis of the phenomenon as garnered from participants (e.g. van Manen's hermeneutic approach). The two-stage interpretation process of IPAs (double

hermeneutic) makes it somewhat unique in that it places value on *both* the emic and etic analysis. When using an IPA, there is an active role for the researcher as "the participants are trying to make sense of their world; the researcher is trying to make sense of the participants trying to make sense of their world" (Smith & Osborn, 2013, p. 53). This approach allows for the researcher to not only try to understand the participants' experiences from their perspective, but also ask probing questions to ensure critical factors are not overlooked. Through considering the responses of participants, Smith and Osborn (2013) suggest questions such as "What is the person trying to achieve here?" or "Do I have a sense of something going on here that maybe the participants themselves are less aware of?" (p. 53-54) may help provide a richer and more complete analysis of the central research question. IPA has close ties with cognitive psychology and a cognitive paradigm as sense-making from both the participant and researcher is a key feature. Because the central research question of this inquiry is aimed at discovering how CTE teachers perceive their particular situation and are making sense of their world (role in developing students' motivation to write), it was an appropriate methodological approach (Smith & Osborn, 2013).

## Researcher Positioning

There are numerous reasons I am interested in exploring CTE teachers' beliefs about their role in developing students' motivation to write. Beginning in 2011, I taught an academic success course aimed at helping college freshman succeed in college. Many of the questions my students raised and many of the complaints they made all related to their increased reading and writing demands. As mentioned previously, this sentiment was supported by research, where students often report disliking writing assessments as

their time commitment is high and the writing process as a whole is cognitively demanding (Flower & Hayes, 1981, Graham, Gillespie, & McKeown, 2012, Hayes & Bajzek, 1996). It was clear to me that they were ill-prepared for the writing demands of college, and lacked confidence in their ability to succeed. This began a more in-depth line of inquiry into the construct of writing that continues with the present study.

In 2015 I began working for the Nebraska Department of Education as the data, research, and evaluation specialist for Nebraska CTE. One of my roles was to analyze CTE student performance data and other data sources to identity performance disparities or areas in need of attention and develop action steps to address those needs. Consistently, almost half of the CTE students in the state who took multiple CTE courses were not performing proficiently on Nebraska's statewide English/language arts assessment. When examining whether or not a lot of writing was taking place in CTE courses, I was disappointed to realize the answer was, not as much as I would have expected. These facts were incongruent with what I knew about CTE classes, the conditions that help students' develop motivation to write, and the importance and value of students being able to effectively communicate in writing for their future. As beliefs impact the choices people make, I became increasingly curious about how CTE teachers' felt about their role in helping students develop motivation to write, and exploring how those beliefs related to their instructional practices of including or not including writing activities into their courses.

Now serving as Nebraska's State Director for CTE, I am asked often (from business leaders, legislators, secondary and postsecondary administrators, parents, and other stakeholders) about the value of CTE and the unique affordances CTE classes

provide teachers and students. I am also responsible for leading a large team of content experts in their development and delivery of professional development opportunities to Nebraska CTE teachers. I have a vested interest in a deeper understanding of how CTE teachers view their role in helping develop students' motivation to write, and, how this understanding can then better inform how we support CTE teachers and students' writing development. Given my current professional role, it will be imperative for me to set aside my preconceived notions and motives, as a researcher, instructor, and administrator, to explore objectively the beliefs of these CTE teachers.

**IRB and Ethical Considerations**

The procedures for this study were approved by the University of Nebraska-Lincoln (UNL) Institutional Review Board (IRB) prior to participant recruitment and data collection (see Appendix A). While the sample population would generally not be considered a vulnerable population, my position within the Nebraska Department of Education may have been perceived as a conflict of interest. In no way does my position afford me any influence over the hiring, firing, evaluation, or other positioning of a teacher. Teachers in Nebraska are employed by individual public school districts governed by a local school board or employed by a private entity. However, it would be naïve to assume teachers would not perceive my role as one of authority or influence, thus potentially influencing their openness and candor. Because the ultimate goal of this inquiry was deep understanding so that supports can be put in place to help teachers help students develop motivation to write, it was imperative for a strong rapport and level of trust between the researcher and participants be built.

## Research Purpose and Questions

The purpose of this IPA was to describe the beliefs of CTE teachers about their role in developing students' motivation to write. The central research question guiding this study was: **How do CTE teachers view their role in developing students' motivation to write?** Five sub-questions that further explore this central question include:

SQ1: How do CTE teachers feel their role is unique or differs from those of non-CTE teachers?

SQ2: How confident do participants feel about their own ability to write?

SQ3: How confident do participants feel about their ability to develop students' motivation to write?

SQ4: What are the greatest challenges these CTE teachers face in developing student s' motivation to write?

SQ5: How do participants feel they can be further supported to meet these challenges so that they can better accomplish their goals in the classroom?

### Participant Selection

A purposeful maximum variation sampling strategy was employed for this study. Purposeful sampling is grounded in selecting information-rich cases so that they may be studied in-depth for greater understanding of the phenomenon under investigation (Patton, 2002). Maximum variation sampling allows essential and variable features of the phenomenon to be identified potentially across varied contexts (Suri, 2011). This type of sample is constructed by identifying key dimensions of variation, which in the present study were represented by the six different career fields within CTE in Nebraska (see

Figure 1). By selecting one participant from each career field, different aspects of CTE teachers' views of their role in developing students' motivation to write may be illuminated so a more holistic understanding can be achieved (Patton, 2002). Veteran CTE teachers (those with more than 5 years of CTE teaching experience) who have a solid foundation teaching in their respective content area, have a deep understanding of the purpose of CTE, and have demonstrated leadership or service to the career field in which they teach (such as through serving as a local CTSO chapter advisor, actively participating in CTE professional organizations, assisting with content area standards revision, etc.) were recruited.

Smith and Osborn (2013) recommend three-six participants as an ideal number for this type of inquiry as the capacity of the researcher will be sufficient for in-depth engagement with each individual. Six participants were recruited to contribute to the rigor of the study. While not intended for comparative purposes, selecting one CTE teacher from the six possible career fields helped obtain a broad array of perspectives contributing to the rigor of the study. Using this purposeful maximum variation sampling maximized the sample in terms of diversity relevant to the research question. Participants were recruited through an email invitation from the primary researcher and at the recommendation of the respective state content area specialist.

**Data Collection**

Data were collected through the use of one-on-one semi-structured interviews and a review of relevant artifacts (such as curriculum and instructional resources). This approach allowed the researcher to modify initial questions based on the participants' response, thus providing for a more open dialogue and deeper probing of unexpected

issues that may have come up (Smith and Osborn, 2013, p. 57). As pointed out by Smith and Osborn (2013), semi-structured interviews allow for the better facilitation of rapport and empathy, a greater flexibility of content coverage, and for the interview to go in novel areas. As a result, these types of interviews tend to produce richer data (Smith & Osborn, 2013). An interview schedule that includes a set of questions was created to guide the interview, but not dictate it (see Appendix B). The questions included represented forethought into what the interview might cover and how the interview might proceed. A crosswalk between the research questions and interview questions can be found in Appendix C.

Once participants were selected, a welcoming introductory email was sent to them. This letter not only provided context to the current study and clarified participant requirements, but given the researcher's role within the State, provided complete transparency in the purpose of the study and use of results. Virtual interview arrangements were made given the ongoing COVID-19 pandemic. Once interviews began, the researcher reviewed the informed consent survey and answered any questions the participant may have had. Interviews then proceeded using the semi-structured interview schedule found in Appendix B. As part of the study's validation strategies, follow-up communication was initiated with each participant.

**Data Analysis**

The aim of analysis in an IPA is to discover and understand the meaning participants ascribe to the central phenomenon (Smith & Osborn, 2013). In other words, the goal of the researcher is to "investigate how individuals make sense of their experiences" (p. 8) by examining a phenomenon in-depth, rather than generating a theory

to be generalized across a population (Piekiewicz and Smith, 2014). To accomplish this, video recordings and transcripts of the interviews were engaged and reengaged by the researcher to ensure the meanings were understood as deeply as possible. The steps outlined by Smith and Osborn (2013) for analyzing IPA data were utilized. See Figure 2.

After engaging numerous times with each video/transcript, themes from the first case (participant) were developed while employing a free textual analysis. Through this process, the researcher tried to step into the participants' shoes and took notes about emerging themes, use of language, amplifications, and the like.

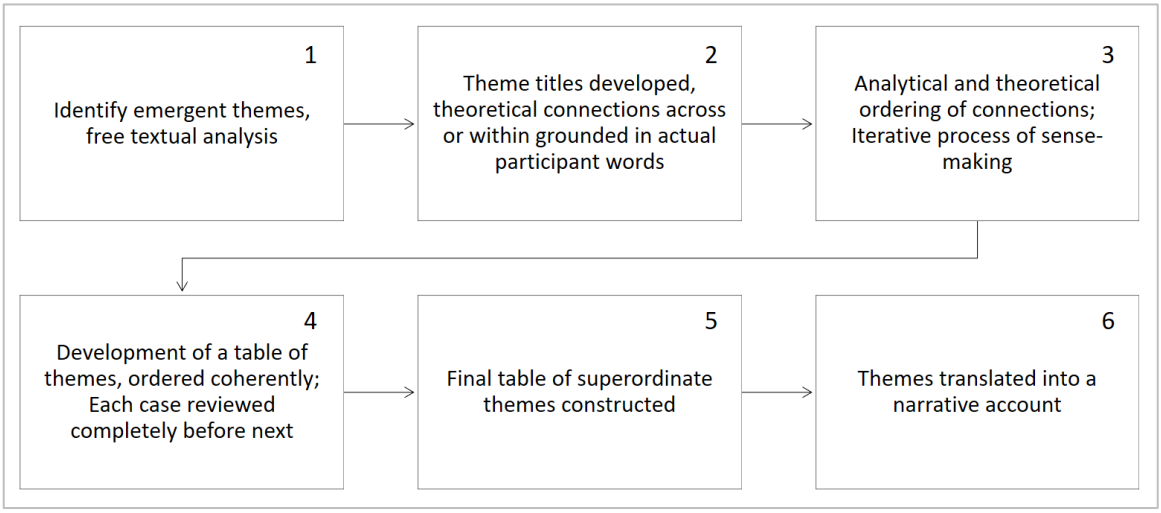


*Figure 2*. Steps for IPA Analysis

From these notes, theme titles were developed, with any theoretical connections across or within the case still grounded in what the participant actually said. No attempt was made to omit any part of the interview transcript, as the entire transcript was considered data. Next, themes were listed and connections considered. The researcher worked to make sense out of those connections using an analytical or theoretical ordering. The analysis was quite iterative, as the researcher drew upon her own resources to make sense of what the participant said, while also constantly checking her own sense-making against what

the participant actually said (Smith & Osborn, 2013). Next, a table of themes ordered coherently was developed. Using NVivo software, identifiers that indicated where in the transcript a textual example may be found were created. Once the first case was completely reviewed, the next case was started from scratch. This allowed any convergence or divergence from case to case to be identified once all analyses were complete. A final table of superordinate themes was then constructed. If any new superordinate themes emerged, transcripts were re-reviewed to ensure the interpretation was expressed. Finally, themes were translated into a narrative account which included verbatim accounts of participant responses. A results section is provided in Chapter 4 to describe the emergent themes, along with a discussion section in Chapter 5 to connect the analysis to extant literature (Smith & Osborn, 2013).

**Validation Strategies**

To assess the accuracy of the findings of this study, several strategies were employed. Creswell and Miller (2000) and Creswell and Poth (2018) suggest that engaging in multiple validation strategies while conducting a study represents a unique strength of qualitative research, as they each add value to the accuracy of findings. Five specific strategies were incorporated into the present study, including: (1) engaging in reflexivity, (2) the triangulation of multiple data sources, (3) member checking, (4) generating rich, thick descriptions, and (5) engaging in a peer review of the data and research process (Creswell & Poth, 2018). First, a section within this proposal was included that outlines the researcher's own bias and perspective from which the study is being approached (see Researcher Positioning above). This reflexivity allows others to fully understand the position of the researcher. Throughout the study, connections were

identified that link the current study to the researcher's past experiences (Creswell & Poth, 2018). Next, data from multiple sources were collected to provide corroborating evidence that highlights a particular theme (see Appendix D). When similar evidence is collected across sources (or triangulated) it provides validity to the findings (Creswell & Poth, 2018). In this case, examples of teacher CTE curriculum, classroom assignments, and other artifacts identified as relevant were reviewed in addition to the face-to-face interview with the participant. Once data were collected, analyzed, and interpretations were preliminarily made, they were taken back to the six CTE teacher participants to ensure the researcher's explanations and analyses were accurate and nothing was forgotten or omitted. This process is known as member checking (Creswell & Poth, 2018).

In reporting on this study, rich and detailed descriptions are provided in Chapters 4 and 5 that incorporate many details of all relevant themes. Additionally, as Creswell and Poth (2018) suggest, raw data were revisited shortly after it had been collected so notes and other details could be included, which may need to be considered during analysis. A final validation strategy that was employed was having colleagues and advisors extremely familiar with CTE, writing, and qualitative research ask hard questions about the methods, meanings, and interpretations to keep the researcher "honest" (Creswell & Poth, 2018). In this case, both professional colleagues as well as the researcher's dissertation committee chair and members served in this role.

## Chapter Summary

This chapter has detailed how qualitative methods, specifically phenomenology and the use of an interpretative phenomenological analysis, was an appropriate design fit

for the current inquiry. The researcher positioned herself within the study and outlined potential ethical considerations. The research purpose and questions were repeated to orient the reader, which was followed by a description of the participant selection, data collection and data analysis processes, and validation strategies that were employed.

# CHAPTER 4:

# FINDINGS

In this study, IPA was used to describe CTE teachers' beliefs about their role in developing students' motivation to write. By utilizing a constructivist approach, the experiences and beliefs of CTE teachers produced rich descriptions of "what" they experienced relative to their role (textual) in addition to "how" they experienced it (structural). Adding to the participants' own interpretation of their experience were the researcher's translation and sense-making of the participant's personal world. Unlike studies driven by a singular goal of describing a phenomenon, the current findings represent the outcomes of a research approach meant to help "understand, interpret, and amplify the lived experiences of the research participants and make their experience a meaningful and dignified one" (Alase, 2017).

The overarching research question guiding this study was: *How do CTE teachers view their role in developing students' motivation to write?* Insights into the shared experiences of these CTE teachers is provided throughout the findings, which contribute to a better understanding of the meaning participants ascribe to developing students' motivation to write as a CTE teacher. This phenomenon was examined in-depth, rather than widely for generalization purposes.

An iterative approach to data analysis was taken beginning with an inductive approach to coding, in which themes were noted as they emerged within each participant account. Relationships across codes, acknowledging when and if they clustered around any particular theme, were also noted. Word and coding frequencies were identified through NVivo software. The use of NVivo allowed for easy reference within and across

data sources throughout the iterative analysis process. Ultimately, four main themes emerged from the analysis of data. Each theme emerged in relation to the participants' descriptions of their experiences, beliefs, and teaching practices. Trends that were later identified as themes reflected ideas commonly expressed by all participants. These themes include: (1) a Driving Purpose, (2) the Uniqueness of CTE, (3) the Importance of Writing, and (4) Conditions for CTE Writing.

These themes reflect the relationship participants attributed to what they've experienced, how they view themselves as CTE teachers, and how they view their role relative to developing students' motivation to write. Subthemes were developed to provide further depth and examples of the rich responses participants provided (see Table 1).

Table 1: Overarching Themes and Subthemes

| **Themes** | **Subthemes** |
|---|---|
| Driving Purpose | Early Exposure to CTE/CTSOs<br>Industry Experience<br>Preparedness |
| Uniqueness of CTE | Career and Future Focus<br>Workforce Alignment<br>Flexibility |
| Importance of Writing | Inclusion of Writing<br>Real-World Context<br>Assessment and Feedback |
| Conditions for CTE Writing | Relevance and Interest<br>Teacher Self-Efficacy<br>Time<br>Collaboration |

As can be seen in Table 1, there is notable overlap across themes, mostly when participants were discussing their practices as being unique to CTE and the conditions necessary for writing in CTE. Additional exploration of the overlap will be provided within each theme's description and in Chapter 5.

## Driving Purpose

Throughout the entirety of connecting with participants, there was a deep sense of a driving, personal purpose that each ascribed to their work. This theme, mainly driven by personal experiences and beliefs, was fundamental to understanding these CTE teachers' decision-making processes. Impassioned reflections of their own time in high school, college, and early in their career underscored the purpose-driven nature of their work. Three of the six participants went directly into an industry-related job before shifting their career path to teaching in the same field. Only one participant described no other work experience except for teaching. Together, these experiences instilled a desire to ensure their students are prepared for all of their next steps in life, including postsecondary education, employment, and other life pursuits.

Participants varied somewhat in age, teaching experience, geography, and content area, yet three subthemes continued to emerge related to their driving purpose with regards to the content they teach and the outcomes of their students. These included having: (1) early exposure to CTE/CTSOs, (2) first-hand industry experience related to the courses they teach, and (3) desire to ensure their students are prepared for their transitions after high school (Table 2). Taken together, the subthemes illustrate the important impact early personal experiences with either CTE or industry had on

participants' overarching guiding philosophy for teaching and related instructional decisions.

Table 2: Driving Purpose of CTE Teachers

| **Themes** | **Subthemes** | **Example of Significant Statements** |
|---|---|---|
| Driving Purpose | Early exposure to CTE/CTSOs | "My mom was a home economics teacher at the time, FHA - future homemakers of America, and my dad was a shop teacher, and I just kind of grew up with all of that." |
| | | "That's how I got my Family and Consumer Sciences kind of knowledge…[my mom] taught me those pieces, and then so at school, I took business courses. I was an active member of FBLA and attempted to be a state officer." |
| | Industry Experience | "I think maybe my experience outside of education has perhaps given me a more real-world approach. I always try and give [students] scenarios about real-world situations." |
| | | "...my teaching changed tremendously from the first seven years I taught just out of college, and student teaching, and then when I went out into the workforce in that Healthcare world, what I brought back into the classroom was so different than what I had in the classroom before I did that." |
| | Preparedness | "I try to give them, if not hands-on, a real-world scenario…all of those things so that when they leave my program, that they don't go out into the world and are not aware of, you know, a lot of situations that they really need to be aware of." |
| | | "I try to get the student to see themselves in those roles so that they can personalize that information…I strive to make sure that the kids are getting things that are usable out in the real world in addition to making sure that we hit the standards." |

**Early Exposure to CTE and CTSOs**

Participants in the current study represented content areas across all six CTE career fields. One of the first things noted by many of these teachers was their early introduction to CTE or CTSOs, including having parents teaching in the field. These experiences not only seemed to shape the trajectory of their own career pathway, but similarly resulted in participants sharing passionate accounts of their content area and driving purpose for teaching in CTE.

Michael is a dedicated Agriculture, Food, and Natural Resources (AFNR) teacher and FFA advisor of over 20 years. Growing up in Nebraska, he shared: "I was very active in FFA and I took Ag courses…my Ag teacher at the time encouraged me to, you know, consider Ag education….and I guess that's what led me to that it was the right way to go." Through college, however, Michael changed his major to Animal Science and ended up returning to work on his family ranch instead of teaching. He went on to explain:

> "Even after I graduated from college, I would help out with the local Ag Ed program and FFA chapter…I guess that bug, that teaching bug never really left me…It was always something that I thought of, but you know, I thought those doors were closed with my animal science degree."

Lauren also grew up in Nebraska and was actively involved in Agriculture education and participated in FFA. Now in her ninth year of teaching Family and Consumer Science and Health Sciences in a small rural district, she shared how her CTE focus changed in high school:

> "I didn't really get involved in FCCLA until I was a senior. And this is just always funny to think about now, but I was a big FFA, Ag girl. And then, sometime along senior year, I made the transition over. But, I mean even having a lot of FFA experience, there's so much that crosses over."

Lauren went on to explain that one of the primary reasons she is currently teaching Family and Consumer Science is because of the relationship with her own high school Family and Consumer Sciences' teacher:

> "I originally started teaching FCS because of my high school FCS teacher. I was really big in 4H and so, you know, senior year trying to decide what you want to do she was like, "Hey, this is what you should do. Go check out Wayne State College." And so, that's what I did!"

David, a veteran Skilled and Technical Sciences (STS) teacher, shared a similar experience with his own high school shop teacher. When trying to decide his college major, he explained:

> "I actually went back and talked to my high school shop teacher and he said, "Well, I don't know why you didn't [major in STS education] in the first place." Because I was just was down there all the time. I took all of his classes in high school. And so, it was just a good fit for him to say, you know, "I think this is something you'd be good at." He goes, "You're, naturally good at it." I was a student aid. I had always taken all of the classes that they had, and I was just good at it. And he goes, "I think it would be a good fit for you."

David, like Michael and Lauren, also participated in a Career and Technical Student Organization (CTSO), although at the time, the related CTSO was not SkillsUSA like it is today. He described the Technology Student Association (TSA) and his involvement as:

> "Smaller…we had a chapter and so I was president of that when I was a senior in high school. We didn't do a whole lot, but it was just something for kids who were interested in the vocational side of it, to kind of get together. We had some meetings and we tried to do some things we could, but it was, it was a group to be a part of, really. You know, a positive group to be a part of in high school."

Incidentally, two of the six CTE teacher participants had family members who taught CTE and provided an early introduction into the various content areas. Debbie is a Health Sciences teacher and has the most teaching experience of all participants interviewed. She's been teaching for 33 years and explained that she chose *not* to take CTE classes when she was in high school because, "my mom was a home economics

teacher at the time, FHA - future homemakers of America, and my dad was a shop teacher, and I just kind of grew up with all of that."

Natalie, a teacher of Communication and Information Systems (CIS) and Business, also had family ties to CTE. While not intending to be a CTE teacher, she prepared to directly enter the workforce after college. Growing up, Natalie described having rich connections to CTE as her mother was a Family and Consumer Science and Health Sciences teacher, her father was self-employed in the construction field, and she had a "broad association with CTE and the career fields they belong in." She went on to explain:

> "That's how I got my Family and Consumer Sciences kind of knowledge…[my mom] taught me those pieces, and then so at school, I took business courses. I was an active member of FBLA and attempted to be a state officer."

Natalie explained that one of the driving forces of her decision *not* to become a teacher was watching all of the hard work her mother put in. She illustrated this by sharing:

> "I saw her involvement and was like, that's too much. I mean, she's an amazing woman and I want some outside time as well…I'm okay with putting in the extra hours, but sometimes the extra hours are really extra."

Nonetheless, Natalie attributed the fact that she has been teaching Communication and Information Systems and Business for over 17 years to having such a close connection to both education and CTE.

Together, these early exposures to CTE resonated as influential for each of the participants. For some, it wasn't necessarily their own personal experience with CTE at an early age, but working in an occupational area outside of education that impacted their driving purpose and passion for their current work.

**Industry Experience**

Among those CTE teacher participants who had industry work experience, it was interesting to note that most shared compelling accounts of how those experiences continue to drive their current approach to teaching related content. For instance, Michael, veteran Agriculture, Food, and Natural Resources teacher and FFA advisor, shared of his time working in the field:

> "I think maybe my experience outside of education has perhaps given me more a real-world approach. I always try and give [students] scenarios about real-world situations. For instance, in my agribusiness class, if we're talking about finances and things like that, instead of trying to relate it to field or farm equipment or land purchases, I tie it to more home ownership, you know. What's a mortgage? How are you going to calculate your monthly payments? And things like that. Because hopefully they are all going to be home owners down the road."

Everett, an enthusiastic and animated Business, Marketing, and Management (BMM) teacher, also described his experience working in the field before teaching. Before studying to become a teacher, Everett was a bank teller for three years. The impact of his early industry experience was apparent as he recalled many examples of communicating with students. His genuine driving purpose was evident as he shared this exchange about students in one of the very few required courses that sometimes fall under CTE (in this case, economics):

> "I'll tell them, "I'm sure many of you are only here because, you know, you have to be here. You probably wouldn't have signed up for this class if you had an option. But I'm going to tell you right here and now, that this class is probably be most important class you're going to take in your high school career! Period!" And then I'll tell them why. You know, I go into that same rant about being a good consumer and stuff…that's my goal through the whole course, to like, make them understand their place as a consumer and how the economy - they've been a part of the economy since day one when they popped into the world and mom and dad got slapped with the hospital bill!"

Debbie, a Health Sciences instructor, also spoke of her beliefs relative to CTE teachers and the importance of industry experience. While Debbie did pursue a traditional postsecondary educator preparation program, she also continued her education to eventually work in orthopedics with a spine surgeon. She summed what many alluded to by sharing the following perspective on the value of field experience:

> "I think the most influential instructors, especially in CTE, are those that have experience in the field. I mean, my teaching changed tremendously from the first seven years I taught just out of college, and student teaching, and then when I went out into the workforce in that Healthcare world, what I brought back into the classroom was so different than what I had in the classroom before I did that. So that real-world experience, having someone if they're teaching, maybe you know a business class, having actually worked in the business, to meet the student where they're at and then get them to that level that they want to be before they are done."

Throughout most of the conversations with Debbie, references to her work experience and how it had impacted her instructional and curricular decisions were prominent. Her driving purpose as a CTE teacher seemed largely impacted by the experience she had had and how it connected to the actual industry in which the skills and knowledge are applied.

While most participants had some sort of related work experience to the career field they were teaching, many additionally noted bringing industry experts into their classes to supplement their technical knowledge and expertise. Being solution-focused, David, who has always taught Skilled and Technical Sciences, shared how he approaches this component of work by explaining, "I bring in people too, sometimes. I'll have welders come in. And they get to show kids, they're basically the experts for the day or however long they're in there. And I take a lot of [business] tours."

These experiences, both early on in their own educational journey and later while working in industry, reflected important contributions to these CTE teachers' driving

purpose. Most prominent, however, was a collective responsibility and desire for participants to prepare their students for the "next step" and the life and career steps that follow. The idea of *preparedness* resounded throughout each part of each interview. How the instructors viewed exactly what their role was relative to being prepared, along with the instructional practices used to achieve it, varied somewhat.

**Preparedness**

As each participant described their teaching experiences and practices and beliefs, their references to the preparedness of their students seemed to underscore a driving purpose for their teaching CTE more than most. Michael discussed ideas about this motivation related to the preparation of his Agriculture, Food, and Natural Resources students often. For instance, he expressed that his courses are, "hands-on, or real-world approaches not only to agriculture, but what I teach in agriculture hopefully supports what they're learning in other courses." He went on to say:

> "I don't expect them to leave my program to be range judging specialists. Or crop scientists. I realize, you know, I've got to temper that. I want them to be informed consumers rather than specialists in agronomy or the livestock industry."

But ultimately, Michael shared that:

> "I try to give them, if not hands-on, a real-world scenario…all of those things, so that when they leave my program, that they don't go out into the world and are not aware of, you know, a lot of situations that they really need to be aware of. Whether it's taxes or whether it's real estate."

Lauren also frequently referenced her desire to make sure students leave her program prepared. Like Michael, she expressed the realities of the world when elaborating on her driving purpose for what and how she teaches. Lauren teaches in a school with a very high Hispanic population and what she referred to as "first timers," meaning, sometimes she had students who had never before been in an English-speaking

classroom. When recounting a time she had to advocate to keep one of her Family and Consumer Sciences courses from being removed from the schedule, she exuberantly shared:

> "Look at our generations. Like, especially our population. Just being a very large Hispanic population. They're very family-centered. And, you know, I have junior high kids that are taking care of siblings. And I have high school kids that work night shifts and then come to class. They have to be able to do these things, because it's no longer: go to school, come home. You know, like mom and dad did it. Generations have just changed. You have to know how to do these things. And so, that's what I used to like fight for it. Like, no!"

Lauren continued to express her beliefs relative to her role in the preparation of her students. She explained:

> "I think for my role, I think of like, the future…with motivating them to learn, I kind of always [explain to them them], "if you're going to go to college, even if you're not going to go to college, like you are still going to have a job where you're going to have to communicate with other people. I tell them, not just communication, you're going to have to fill stuff out. Especially now, like so much stuff is technology, you're going to have to send an email."

Debbie also referenced preparation across interactions. She pointed out often that her beliefs were impacted by her experience working in the medical field. As such, she expressed deep personal pride in the preparation of the students who leave her programs:

> "I feel very personal about kids coming out of my class and saying, "I had Ms. [Debbie] as a teacher." That means a lot to me...so I, I strive to make sure that the kids are getting things that are usable out in the real world in addition to making sure that we hit the standards that are expected through the district."

Even David shared his hopes for the transferability of the skills he teaches, expressing,

> "If we're in the auto shop, you know, there's a lot of risk and a lot of liability doing brakes. But we have to learn to do that. And it's something that, even if you choose not to be an automotive technician, it's something you can do on your own if you wanted to."

Together, having an early exposure to CTE and CTSOs either through high school or family, having first-hand industry experience, along with a deep desire to ensure

students are prepared for postsecondary education, careers, and life, exemplified a driving and guiding purpose for these successful CTE teachers. While many subthemes no doubt overlapped in areas, it was evident early exposure to CTE, through actual participation or through family members introducing them, instilled elements that still contribute to how and why they approach their work. Similarly, having personal experience working in the industry of which they now teach embedded in these teachers a perspective they feel is truly unique, and as such, has impacted their beliefs and perceived purpose. Finally, the deep desire to prepare students for their future was ubiquitous. This preparedness goal seemed relevant to almost every interaction with participants, as they felt CTE is remarkably unique.

## Uniqueness of CTE

One of the primary assumptions guiding this study was that CTE courses are fertile fields for embedding contextualized and explicit writing instruction, and, that this instruction may have positive outcomes for students' motivation to write. While conversing with participants, either directly or indirectly, the uniqueness of CTE resonated prominently. While sometimes framing the peculiarities as badges of honor, other times participants' comments and later expressions suggested what makes them unique, also makes some work seemingly inequitable.

Balancing their strong driving purpose for teaching CTE, all participants were able to articulate their view of their work and role relative to non-CTE teachers and programs. Consistently, comparisons across students, teachers, and the content of classes allowed for three subthemes to emerge providing examples and understanding to what in their view, makes CTE unique. The three subthemes include: (1) the actual career and

future-focus of the course, (2) its alignment to the workforce, and (3) the flexibility afforded to CTE teachers relative to curriculum and pedagogy. These descriptions and interpretations add to the collective understanding of how participants view their role (and related roles) as both a teacher, but uniquely a CTE teacher.

Table 3: The Uniqueness of CTE

| **Themes** | **Subthemes** | **Example of Significant Statements** |
|---|---|---|
| Uniqueness of CTE | Career and Future Focus | "In CTE classes, you get a chance to connect to students based off of their possible ambitions and dreams and goals and things they want to do." |
| | | "I always tell students the difference between the other classes and mine is that I make sure that everything we talked about applies to them. As a consumer or for their future." |
| | Workforce Alignment | "And when you have a cement plant in town and they need a lot of machinists and welders, sometimes there's a good conversation back and forth about specifically what they need, so that our students are getting that, so that they can maybe, a lot of time, transition to working up there." |
| | | "When I talk about CTE, it's basically bringing the functional workforce into the classroom…it's about purposeful, functional education to be a contributing individual in a community." |
| | Flexibility | "I don't think it's the same for other teachers. There's probably a set curriculum statewide for reading and math and science, and that's pretty regimented that you follow." |
| | | "They don't understand what we go through during registration, they don't understand my stress. And they don't understand why I have to put together a recruitment email that has as many kids on it as I can put on, and try to make it as personal as I can to get them in my room." |

**Career and Future Focus**

Several unique characteristics of the focus of CTE courses emerged as a relevant subtheme as it helped further illuminate the overarching theme of the uniqueness of CTE. One quality in particular related to the purpose for which students are in these classes. Unlike required courses, Natalie explained that, “for the majority of them, they're all elective courses.”

To further describe his Agriculture, Food, and Natural Resources students, Michael shared their unique and distinguishable career and CTSO focus:

> “50% of them are interested in Ag and are looking at a possible Ag career. And then out of the rest, there's probably 10-15% that, you know, there is a strong family influence, encouragement that they want their students involved in FFA. And then, there's probably the remaining 25-40% who understand that to be in FFA...they need to find a place in their schedule for an Ag class first."

Michael went on to explain that the majority of his students enroll in his classes because they see a purpose and value to the knowledge and skills they will develop. He continued: "The welding and Ag Mechanics classes… those kids want to use welding or Ag mechanics to help them either in a career or if they return to the family farm or ranch."

David also described a similar career-focus for the students he spoke of in his Skilled and Technical Sciences courses. Similar to his own high school experience in CTE, he noted: “You get a lot of the kids that are just there because they don't want to be anywhere else. They want to be down there, they want to work on cars, they want to build stuff.” Most notable, however, was the pride David expressed as he shared of the outcomes of his unique, career-focused students and courses:

> "I have kids that are going to go and become engineers, but they want to come [to my class] and they want to learn some of the different side of it. And I've had kids come back and say, “I was going to school to be a mechanical engineer and man, I’m light years ahead of some of these kids because they didn't learn how to weld

> or learn about metal properties. They were really strong on the math side of it but they never were able to take a shop class or welding class.""

Debbie also shared the uniquely career-focused nature of the students in her Health Sciences courses. Debbie teaches at a career academy, a separate campus where multiple high schools send students to complete coursework relative to a focused career pathway, including core academic courses taught within the context of that pathway (such as a technical math course or business communications). She conveyed that:

> "The students I teach are a little bit different than the traditional high school student since we are an Academy. They come to us two hours a day. They do have to apply. It's not a very stringent application but they do have to apply, show interest, and have been on track for graduation.

Debbie went on to explain that "80% of the coursework that they take at the [career academy] is at the college level. Otherwise, it's pretty much focused on the career path and we've got about 14 different career pathways at the academy."

Perhaps because of this focus, Natalie demonstrated how within these CTE courses, teachers are able to build unique relationships with students that have an impact on the content and progression of the course:

> "In CTE classes, you get a chance to connect to students based off of their possible ambitions and dreams and goals and things they want to do…I think it's hard sometimes for, I think it would be harder for an English teacher or a science teacher or a math teacher to always be able to make everything correspond to the student. And so, I think that's something unique."

Debbie echoed Natalie's perspective when she stated: "I try to get the student to see themselves in those roles so that they can personalize that information. I think CTE lends a hand to that better. Because you do have students that have that specific focus, and drive for that Health Science goal." Everett also expressed a similar sentiment when he shared, "I always tell students the difference between the other classes and mine is that I

make sure that everything we talked about applies to them. As a consumer or for their future I always try to make that connection."

Michael also revealed that the career-focus extends beyond the students' interest and also includes their parents'. It was evident that after conversing he believed there to be an unspoken, or even spoken, acceptance that his courses were of value to students beyond the normal high school experience. He explained:

> "You need to make sure that you're very transparent about the things you're doing and why you're doing that. Because, the parents, they want to know not necessarily the fastest way to success, but they want to know how their kids can be successful. And so, those are some of the things that I try relay to the parents, you know, as I'm meeting them all still in middle school."

While a career-themed course naturally has a career-focus, participants also expressed this focus in more general terms of their future as a whole. The overarching theme of having a driving purpose and helping students generally be prepared most probably influenced how these teachers spoke of the unique alignment to the workforce that their CTE courses include.

**Workforce Alignment**

A unique feature of CTE courses that emerged in participants' descriptions of the content of their classes related closely with its ties and alignment to the workforce. Aside from providing relevant classroom experiences, participants shared other activities and practices within their CTE courses to ensure students not only learn about the current world of work, but learn *by* working and applying their knowledge. Michael expressed, "I try to do as much hands-on or engagement activities as possible." To extend learning opportunities beyond the classroom, Natalie coordinates her district's work-based learning program. She shared:

> "I manage our interns, supervise our field experiences in education students, and also our cooperative ed., which is our work release students…the internship students are students that are specifically career field related. So they have to have a program of study completed, because the employers expect a little bit more knowledge from them."

Debbie also reported including work-related activities in her Health Science courses.

Aside from industry tours and trips, she explained she has:

> "…consultants that come in and talk to them about concussions and spinal cord injuries and different things like that, so we can apply the content knowledge too. We do a lot of case studies where we do the real life application too, and how does what you've learned apply to the different phenomena."

She went on to explain why she chooses to focus on the relevance of the content she includes in her classes and her approach to teaching it:

> "When I talk about CTE it's basically bringing that, the functional workforce into the classroom…juniors take the nursing assistant [exam], they take medication aide, they take phlebotomy, they can take EKG/ECG class, you know. So they are getting that career background and that career balance where it's not just the academia. But it's also the functional, daily, purposeful education to be a contributing individual in a community."

David reported that he relies heavily on local businesses to help him ensure alignment to what their needs are and maintain relevance in his course. Many of the participants shared this sentiment, as was illustrated as one part of how CTE courses were expressed unique. David elaborated:

> "Employers are needing some employees. We've really reached out to make a lot of connections with local business and industry to say, for instance, I was using a welding rod that's just a basic welding rod. They're going, "Why are you using that? We're not using that in the industry." And so, those connections have helped drive using the right tools and equipment and making sure we're teaching some of the right things. Like, one of the things I do is gas welding. And they're like, "Well, really nobody does that anymore because we have other processes that are more effective." But I said, yeah, but it's also cheaper for me to do that when, when kids…like for the tig process, the tungsten and the gas are really expensive. But the oxygen and acetylene is cheap. So, I teach that as a way to further hand-eye coordination. Then they can move on to a more expensive process."

These intentional connections and alignment with businesses locally seemed to serve a dual purpose that also benefits the business. David continued:

> "And when you have a cement plant in town and they need a lot of machinists and welders, sometimes there's a good conversation back and forth about specifically what they need, so that our students are getting that, so that they can maybe, a lot of time, transition to working up there. So, that's really kind of how I decide what I'm going to teach. How I'm in communication with those people around me."

Workforce alignment has historically remained a key driver of CTE programming at a national and state level. The demonstration of just how that drives instruction in CTE classes resonated as something "different" and unique compared with the practices of the participants' teacher-colleagues. Perhaps because of the ever-changing workplace and global marketplace, the related flexibility afforded to CTE teachers emerged as the final subtheme illuminating details of the uniqueness of CTE.

**Flexibility**

The many nuances of CTE classes and the flexibility they provide teachers were commonly referenced thorough conversations with participants. In all cases, CTE teachers across career fields compared the flexibility of their courses with that of, what some refer to as, "core" courses - those that are typically tested statewide for state and federal accountability purposes (e.g. mathematics, English/language arts, science). They did not, however, compare themselves against any other CTE content area.

When reflecting on how he decides what content to include in his STS classes and the instructional decisions he makes, David communicated:

> "I don't think it's the same for other teachers. There's probably a set curriculum statewide for reading and math and science, and that's pretty regimented that you follow. But, not all school districts have automotive. Not all school districts are going to have the welding that we have. And so, I think that's one of the things that sets us apart. We're very specific to our school district, our students, and our

> region. On how we teach and what we teach. Because, it really does depend on where you're at. And we have to be flexible about it, too."

While meeting with Lauren, it was evident she tries to provide as many relevant opportunities to her Family and Consumer Sciences students as possible. She also commented on her flexibility and the uniqueness of CTE with regards to the content she includes in her classes:

> "Child Development I've changed a little bit and I've made the preschool childcare section a lot bigger just because it's, becoming a mom, you know, it's a need. Like childcare is, people are always needing childcare, right? It's hard to find! And so, I've kind of made that section bigger because I see, I feel like I have a lot of students that are kind of interested in that. So kind of a combination between standards and what I feel is needed in the community."

As illuminated in the workforce alignment section above, being responsive to the needs of business and industry was also a noted theme throughout interactions with participants. Having this flexibility was important to Lauren, who went on to explain its necessity as her industry continues to evolve. She shared:

> "Thinking about FCS, it's like, nutrition labels change I swear every three years. You know, and childcare. There's always, "well, now pediatrician say this." And so we're constantly having to stay up-to-date. I think it's just, it's nice that we can be that flexible in how we do it."

Lauren further clarified that she felt that this flexibility was truly unique to CTE, by asserting:

> "Yeah, I think it is. I think it's unique for the fact that like you know, you can decide. You know I think of the science teachers and you know, they kind of just redid all of the science curriculum, it's very structured. You know, you need to do this and you need to do that, which is fine for science. I just think it's nice that like, we get that flexibility, you know?"

While speaking with Everett, he also highlighted his appreciation that he has flexibility in what he teaches, including how he assesses his CTE business students. He reflected that,

“the district doesn't require us to do, like, the same tests. We can do our own tests. Which is nice, gives us some flexibility.”

In contrast, Natalie shared some of the frustrations she experiences that also come with this flexibility and not teaching in one of the required, tested areas:

> “The more that I've learned about other districts, or other courses, required courses. One, they're required. So they have people in their seats. Whether their courses happen, they don't understand what we go through during registration, they don't understand my stress. And they don't understand why I have to put together a recruitment email that has as many kids on it as I can put on, and try to make it as personal as I can to get them in my room. Because, high school kids, they'll choose the class with no homework or the class they get their friends in. So, I have to find a way to get them, to get them there. So sometimes, and even though we have, I mean, we have state standards, but sometimes teachers in other courses don't realize that.”

Natalie continued comparing her experience teaching CTE courses with those of her non-CTE colleagues. She went on to express that while there is more awareness than there used to be about the importance of the courses she teaches, she still struggles with the continued and required advocacy she must provide to simply teach them. She stated:

> “Again, they don't have the, the emphasis that it's an elective, and if you don't have kids in the seats, you don't have a class. So, it may be great, valuable information that students need to know, but if you can't, can't promote it, and can't get, I think 14 kids in our class on a consistent basis, then you can't hold it.”

Overall, the career and future focus of CTE classes, their intentional alignment to the workforce, and the flexibility afforded CTE teachers accentuated the seemingly unique qualities of CTE courses. While mainly determined to be unique in comparison with non-CTE courses or teachers, participants provided common explanations for how they viewed and elevated the content they were teaching and how they taught it. These rich, yet broad accounts gave rise to a more in-depth discussion about writing in their

respective CTE classes. Without exception, each CTE teacher participant expressed just how important writing is in their field, and for students to be prepared in general.

## Importance of Writing

As participants moved from describing their CTE classes to discussing writing specifically, the importance they placed on it was obvious. There appeared to be, not surprisingly, a driving purpose behind the instructional decisions these teachers make day-to-day. While some emphasized the purpose for including writing activities, others shared deeply about the feedback they do, and don't, provide. Collectively, participants shared numerous examples of the types of writing taking place in their CTE course. These examples then provided a rich illustration of what students experience in their CTE classes relative to writing, and how CTE teachers view their role in that regard.

Throughout conversations with participants, three subthemes emerged as salient and exemplified how teachers experience their role as a CTE teacher and the importance they place on writing. Specifically, (1) including writing assignments in their class, (2) situating writing assignments within a real-world context, and (3) assessing CTE student writing and providing feedback (see Table 4). Together, the actions and beliefs teachers shared illuminated the importance they place on writing in CTE.

### Inclusion of Writing in the CTE Experience

Perhaps one of the most unexpected findings of the present study was the sheer amount of writing found taking place across all CTE areas among study participants. While trying to make a distinction between providing a writing assignment and providing instruction to write proved rather difficult, participants were able to share numerous

meaningful ways they incorporate writing into their courses nonetheless. Michael didn't mince words when he directly stated: "I think writing is very important."

Table 4: Importance of Writing in CTE Classes

| **Themes** | **Subthemes** | **Example of Significant Statements** |
|---|---|---|
| Importance of Writing in CTE Classes | Inclusion of Writing in the CTE Experience | "We write up a plan of procedures, you have to write step-by-step what you're going to do. It's not necessarily in sentence form, but it breaks down the main ideas for what they're going to have to do to build the project." |
| | | "Each of my assessments I have some type of a short answer possibly or even an essay type question. And then I tell the students that it is important for them to realize that the generation of people that are hiring a lot of their age, have a higher level value on writing and grammar and punctuation than they do." |
| | Real-World Context | "I check with my business professionals about what writing they're doing on their job...how do they use Microsoft Word? Or, what do they use, and what kinds of writing are they doing in their workplace?" |
| | | "I you're going to work in healthcare you're going to have to be able to communicate with other professionals as well as the patients and the families. You have to be able to not only verbally, but write it as well." |
| | Assessment and Feedback | "Initially I tell them just to write. It's like throwing paint at the wall. You just got to throw a lot of paint at the wall sometimes, and some of them are, they're artists! They have the wall covered. They're great writers. But some of the other students, you just got to keep throwing paint and we'll help you smear that paint around." |
| | | "I do try to grade them because, my thought is, if I ask you to do it, I better grade it and give you some positive feedback." |

Like Michael, the other CTE teachers also described the amount of time and effort placed on the writing happening in their courses. With the flexibility to make instructional decisions as they saw fit, as was described above, the CTE teacher participants described purposefully including a wide-range of writing activities across all areas.

Examples of the writing taking place in CTE classes included technical writing assignments, lab reports, journaling, and even CTSO competitive event work. For instance, Michael described his inclusion of writing in his classes as follows:

> "Each of my assessments I have some type of a short answer possibly or even an essay type question. And then I tell the students that it is important for them to realize that the generation of people that are hiring a lot of their age, have a higher level value on writing and grammar and punctuation than they do. Because, you know, they've grown up with what I call, "text language.""

In Michael's Agriculture, Food, and Natural Resources courses, much of the content overlaps with FFA competitive events. He explained that he often uses FFA events as a "carrot" (as opposed to a stick) for students to practice writing. Specifically, he stated:

> "On the FFA side we have students fill out proficiency applications. And I have them do two peer reviews, a parent review, and then an advisor review. And we think that, that proficiency piece is good for them for recognition, and so we want to encourage them to do that on the FFA side. So that's kind of the carrot, but the true matter is that I want them to practice writing without giving them a writing assignment."

In his Skilled and Technical Sciences courses, David also reported including opportunities for his students to practice writing even when they don't immediately see the relevance of it in a "shop class". David explained that:

> "We write up a plan of procedures, you have to write step-by-step what you're going to do. It's not necessarily in sentence form, but it breaks down the main ideas for what they're going to have to do to build the project. So those are some of the things that I do specifically for writing for kids, because it's really important sometimes, specifically in the automotive field, when you're working on someone's vehicle."

When reflecting on if this type of writing was unique in any way, David went on to suggest that:

> "I think they are because they're probably, they're not a two or three page paper like you'd have in an English class. There's not really any, there's not a whole lot of references that you need to cite, though I'm thinking about how I can include some of that."

As she described the career academy in Health Sciences, Debbie appeared to be very focused on making sure her students are prepared for field-related work. She described many types of writing activities she includes in her courses:

> They learn how to write APA papers. Because the high schools all teach MLA. So when they come to writing they want to put a lot of personal feeling and everything into their papers where I want data. And I want fact. And I want it succinct, and I always tell them quality over quantity. Ha! But we also work on writing emails. We work on having conversations. We work on the health care provider/patient conversations. And cultural proficiencies. So we're trying, we try to write in a very neutral tone when we do our emails."

Elaborating more on how her industry experience has impacted how she makes instructional decision, Debbie continued illustrating just how important writing is in her field and for the skills she works to develop in her students:

> "I've had the experience of working in the healthcare setting and having to write those things. Having to do medical records. Having to correspond with patients. Having to correspond with other physicians. Having to correspond with insurance companies because they have a question on a procedure or a billing and different codes and different things like that, that all fall into that Healthcare realm. And transcriptions and medical records are a legal document. So you have to make sure what you put down is accurate information. Everything is documented and it's a legal document. It can go to court!"

Everett also placed importance on writing and the writing assignments in his business classes. As were most other writing assignments across participants, these were naturally focused around the outcomes he hopes for his students:

> "So at the very end of the term they have to take this, basically, a two-page case study of information about a family. And then they have to tell me, if they were sitting down as a financial advisor for that family, what they would do. How they

> would address these different issues. So then they have to write out what they would do, how they would do it, and how they would address those things."

Everett went on to share that he often uses case studies in his class along with weekly current events. In each case, students were writing either a reflection or applying knowledge while writing.

In Natalie's Communication and Information Systems courses writing somewhat depends on the courses she teaching. While teaching some information technology courses, she shared the skill-based nature of the course doesn't always lend itself well to incorporating a "typical" writing activity. That said, Natalie also teaches an entrepreneurship course. She shared how student choice was a strategy she employs to ensure the writing task was relevant:

> "I use a lot of student choice. So like in entrepreneurship, they write about their own business plan to give them different ideas of what they, you know, what they want to consider. Sometimes it makes it harder for them to come up with something on their own. But, I feel like they're more invested in it if they choose what to write about."

In sum, along with many other rich descriptions of their work, these CTE teacher participants clearly elevate writing and its importance throughout the work they do. Often relating back to their driving purpose, each described writing taking place in their classes. One notable theme that continued to emerge was related to the nature of the writing itself. Not only was writing happening across all areas, but it also is very context-dependent. As one would hope given the career and future-focus of these courses, most writing assignments were judged to be important because of their contextualized, real-world nature.

**Real-World Context**

As participants described the writing assignments they include and value in their courses, it was apparent most were situated within the context of a real-world situation or application aligned with the particular CTE content area. If the activity itself wasn't highly contextualized, teachers interviewed described how they "set the stage" by giving real-world writing expectations. David illustrated this when discussing how he believes writing has a place in his automotive class even though students initially balked. He explained:

> "That's one of the things that I actually have spent a lot of time on. And specifically because, when I think about automotive kids, you go to get your car worked on and you want someone to pay $1,000 to get it fixed, and you write up in their report your bid to that person: "It's broke. I want to fix it." They're not going to give you $1,000! So, you have to be very specific on how you trouble-shooted that vehicle and what you're going to do to fix it. And so, I have kids journal at the end of a lot of our lab activities or shop activities they write. They write about what they did and they have to explain it. So that, if they are in that case they don't sound like an idiot and can convey that people can trust them."

Natalie described how she often confers with local businesses to ensure her writing tasks for the Communication and Information Systems classes are aligned with real-world expectations. She explained:

> "I check with my business professionals about what writing they're doing on their job, you know, most of them aren't, you know, policy manual writers. So, how do they use Microsoft Word? Or, what do they use, and what kinds of writing are they doing in their workplace?"

Along the same lines of David and Natalie, Everett also reported includes writing assignments in his Business courses. With his light effervescence, he explained that while all of the writing wasn't necessarily *business* writing, his expectations for students output remained the same:

> "And I always tell them that up front… I go, "This is in the business world. You have to use proper grammar. Right? That's important. Just because it's not in your English class doesn't mean that you can start using your text language and crap like that" …I give the English teachers a good shout out. I'm like, "If you want to be a business person you need to pay attention in your English classes because you can't be sending out crap in letters and letters full of errors to a potential client and expect them to come be in business with you, right? I don't think so."

Michael shared a very similar experience when he spoke of "text language." He confirmed:

> "I try to reiterate to students that, that type of language perhaps has its place. But it also hurts them when they get out to apply for those jobs, write those cover letters, even write a simple thank you. Those are important skills and they need to realize that spell check and things like that is not the answer for everything. And reading and writing are important."

Debbie also shared Michael and Everett's sentiment about the real-world expectations of writing in the health care setting. She clarified why she chooses to include technical writing activities in her Health Sciences classes:

> "Because it's valuable to the healthcare setting. Because if you're going to work in healthcare you're going to have to be able to communicate with other professionals as well as the patients and the families. You have to be able to not only verbally, but write it as well."

Debbie went on to describe some of the real-world writing she does have her students practice in preparation:

> "We work on charting. Patient charting. So there's a lot of different writing that we do. Some of it is very numbers. You know, being succinct and accurate in numbers. Abbreviations. In the medical world, what's an acceptable abbreviation and what isn't? Because it has multiple meanings. So we do a variety of writing."

Summing up what the views of the majority of her colleagues, Natalie voiced her thoughts on the interrelatedness and transferability of knowledge and skills and how those are brought together through CTE. She went on to suggest that learning these skills

applied to a real-world setting, like an Skilled and Technical Sciences course, has a positive impact to students self-efficacy:

> "They're doing math in their skilled and technical science classes and they have no idea that they're doing it. And, when you point those out they're like, "Yeah!" And so then they can go back to their math class and go, "Yeah, I can do it." And, you know, it happens both ways…in a sense, it just brings life to the academic content that we have to learn. And, you know, you can point to all the different jobs, and some obviously use math more than others, or English more than others, or whatever. But, we all have to have that academic content, but we don't typically get an English job. We get a job where we use English and are writing. And so, that CTE courses allows us to use those skills."

**Assessment and Feedback**

The third subtheme that helped illustrate and better refine how these CTE teachers elevated the importance of writing related to how they assessed and provided writing feedback to their students. Participants described providing feedback from multiple viewpoints, with some sharing that they provide technical feedback about the conventions of writing, such as grammar and punctuation, while others shared a more subtle, motivationally-driven goal. Notable within this subtheme emerged an undercurrent of how these teachers' self-efficacy impacted the emphasis of their feedback. This tone is discussed further in Chapter 5, but demonstrates a noteworthy progression to the fourth overarching theme.

Michael's preparedness driving purpose approach to teaching his Agriculture, Food, and Natural Resources and FFA programs was illuminated even further as he described his strategy for providing feedback on writing. After stating: "I don't take a grade on every one. I just want them to get in the habit of writing and things like that," Michael went on to vividly explain:

> "I have a wide spectrum of students with different writing abilities. And some of them are very gifted, and some students it takes a very, very long time to kind of

> foster that ability to write and be descriptive. Initially I tell them just to write. It's like throwing paint at the wall. You just got to throw a lot of paint at the wall sometimes, and some of them are, they're artists! They have the wall covered. They're' great writers. But some of the other students, you just got to keep throwing paint and we'll help you smear that paint around - basically help with grammar and their punctuation so that then you have a better foundation of your writing ability."

In his Skilled and Technical Sciences classes, David explained what he looks for when providing feedback to students as well as some of the reasons he chooses to do so. With regards to what he provides feedback on, he revealed:

> I try to organize their thoughts, you know, and put it on there. So I make those notes, you know, "I don't understand, I don't get what you're telling me." You know, "I don't, I don't know what you're saying, be more concise." Or, "be more clear." But then I also do, I try to put those punctuation marks on there, too."

The confidence David has for his own writing abilities surfaced when he explained:

> I do try to grade them because, my thought is, if I ask you to do it, I better grade it and give you some positive feedback. But in the same respect too, I try to put different corrections on there because, one, it's an activity for them to write, and two, I'm only trained to do, you know, my experience as far as grading papers on writing is not probably, you know, what an English teacher's is. But I do try to put that feedback on there that helps them so that they know that I'm reading it and I do care. So, it's not always for a grade, but I do like to grade them because that's why I asked him to do it as well."

Everett shared a very similar reaction when asked about the writing feedback he provides to students. He disclosed:

> "I don't know if I feel super confident in my ability to do that because, I don't, I just don't think that's, like, it's not my main focus, I guess. You know, even with your short answers from my econ kids... I don't get too bent out of shape on their grammar, per say. Oh, I might make some corrections, like capitalize things, or you know, write the correct word above it. But I don't, I don't like, necessarily fault them for those."

Interestingly, Lauren expressed a somewhat different experience when it came to the feedback she provides to her students. Given that her district has such a high

population of English learners, Lauren explained different goals that she has for helping students acquire their English language, let alone related, skills. As she stated:

> "I kind of just go with the class. Freshman health for example, is one of the first classes that English language learners come to. And so for some of them, they can tell you, but writing is painfully hard for them. And so sometimes for that group I do have to kind of split, so for some of my students I do grade their stuff, and for some of them - like ELL, it's more of a participation. Like you tried. You know, because sometimes they will probably Google translate something and you'll think like, "I really don't think that's what you meant to say," you know, because writing is really hard for them."

Natalie, however, echoed what others had also expressed that with the writing assignments she incorporates into her classes:

> "They are graded. And typically in a reflection assignment, it has to make sense, content wise, so I'm looking for, you know, correct spelling and it has to be a sentence, and you know grammatically correct, those kinds of things. It has to have a beginning, middle, and an end. You can't just start in the middle of a story and then not tell me, not set me up for what happened. So, those kinds of things for the, the longer writing assignments."

With regards to writing that is explicitly within the context of her content area and related to her serving as a CTSO advisor, Natalie stated the following:

> "I give like a business plan, it has an actual template structure. We actually follow the FBLA rubric. If I happen to get an FBLA kid in entrepreneurship then they write it and then we can send it for competition. But, I also know because FBLA is a national organization that the rubric has been looked at by a variety of people and, so, it's not just me saying this is what's supposed to be in a business plan. It's much broader than just [Mrs. Natalie]."

Used collectively to more fully understand how these CTE teachers view their role, how they approach the assessment and feedback of writing was revealing. The clear balance between including purposeful, unique, and important opportunities for students was impacted by the beliefs they held about their role and related confidence.

As interactions with participants continued to unfold, the final overarching theme emerged. Participants detailed throughout conversations barriers they face when trying to

implement writing in their classes as well as the successful strategies they've employed to overcome them. The conditions under which writing in CTE is and can be successful arose.

## Conditions for CTE Writing

As conversations with participants moved more specifically to the topics of CTE writing and writing motivation, they described the conditions under which they choose to include writing in their courses. How they experience their unique role as CTE teachers embedding other content area skills into their work elucidated some of the shared challenges each face and the strategies they use to overcome them. Across participants, the reoccurring connection to the previous three overarching themes was still present. Participants' driving purpose often came through in their explanation of writing activities where they leveraged CTE's unique aspect of being career and future-focused and aligned with the workforce to provide relevance and peek students' interests. As such, the importance of writing for the aforementioned reasons was a notable undercurrent linking their beliefs and actions.

To more fully appreciate the conditions for CTE writing, four subthemes emerged as salient (see Table 5). First, careful regard to the relevance of the writing activity was expressed by many participants, along with ensuring the topic was of interest to students. Next, appreciation for the teacher's own self-efficacy for writing and writing instruction resonated as important for its inclusion in their class and the feedback provided to students. Having the time to not only integrate writing instruction into their courses but also provide meaningful feedback was often cited as a barrier to implementation.

Table 5: Conditions for CTE Writing

| Themes | Subthemes | Example of Significant Statements |
|---|---|---|
| Conditions for CTE Writing | Relevance & Interest | "Whether it's talking about car makes, manufacturers, Ford versus Chevy, or different engine technologies. I've allowed them to find something that interests them, and then write about it. Because, you go to like, to an English class and a kid has to write about Huckleberry Finn. They're not motivated!" |
| | | "I have to provide a connection to life after high school. Or life outside the four walls of my room. And so some way, I have to make that content relevant." |
| | Teacher Self-Efficacy | "I honestly tell kids, I tell people, I would be the worst English teacher! Like, ever. Cuz, like, I'm just a slow reader anyway. It takes me forever to read things. And, so, I'm getting slightly quicker, but I wouldn't be a very good English teacher." |
| | | "You know, I actually, I feel pretty confident because I've spent a lot of time on it." |
| | Time | "When you think about all the projects we try to do and the value I put on learning those things, trying to do the writing has to fall in there somewhere. And it's sometimes, it's difficult." |
| | | "I don't want to say I'm lazy, but, like that could also be part of my reason for not assigning, maybe more reading and more writing assignments. It's just so many, there's only so many hours in the day. And I like to get stuff back to them quick." |
| | Collaboration | "I know in agriculture there's a lot of teachers outside of my room, or teachers that think, "oh that's just sows, cows, and plows" and whatever. You know? "He's just an FFA teacher," things like that. Where you know, I think if you can collaborate and say, "no, this is actually what we're doing," you would, you could maybe do some things together and get, and get more done for the benefit of students." |
| | | "If it is writing an APA paper, I leave that to my English teachers. So when I assign their research paper, I do it in conjunction with our English teacher. So, it is a joint venture, so to speak. So they take care of the writing style and everything, I take care of the content." |

Finally, collaboration amongst colleagues was far and away the single-most impactful resource these CTE teachers collectively noted as helping them overcome such challenges. Participants own words will continue to be used to illustrate and describe the insightful subthemes relative to the conditions for CTE writing to occur.

**Relevance and Interest**

At some point throughout during virtually all interactions with participants, they were likely to reiterate their beliefs in the relevance of their work. Because of this, many shared through CTE the realization that they are able to develop or augment curriculum to align with their students' interest.

This interest overlapped greatly with what many shared about the uniqueness of CTE, in that students are often enrolling in CTE courses because they line up with the focus of their future and career. Similarly, the flexibility noted as unique to CTE courses also resonated as a driver for allowing such personalization of content. When discussing writing specifically, the interest of students, and instructors, along with the relevance of the task were notable contributors to the conditions for CTE writing.

As David reflected back on his previous 15 years of teaching Skilled and Technical Sciences, he began to describe the conditions that have more recently led him to elevate specifically writing in his courses. He shared:

> "Well, that's why I went back to the technical writing. Because if I asked a kid to read an article and summarize it, they wouldn't want to do it. So one, they were able to describe what they did because they enjoyed doing that. So I simply just ask them to, to journal about or technical write about what they did."

The technical writing activities he described, such as the auto mechanic's example, have become a key part of David's courses. He identified the need for his writing activities to be relevant to the students and speak to their interests. He went on:

> "But then I've also, you know, let them find their interest. Whether it's talking about car makes, manufacturers, Ford versus Chevy, or different engine technologies. I've allowed them to find something that interests them and then write about it. Because, you go to like, to an English class and a kid has to write about Huckleberry Finn. They're not motivated! I get it. But when you talk about new engine technology...there are kids who read a lot of magazines on that stuff, you know. It's unbelievable how much literature is in all these performance magazines they get, and they read them! And so, I allow them to pick those up and then summarize or write for me."

Debbie also shared David's approaches to writing and helping students find success in her Health Sciences classes. She explained that, "we try to find something that…that sparks their interest that they want to write about. And just kind of go from there." Describing her experiences even further, she reflected on her own interests and motivation for the task:

> "I mean, I guess I still feel you just have to find that intrinsic motivator within the students and within yourself. Because if you're not motivated, and you don't have an interest in it, you're not going to be a good teacher in that area. You know, so it's, it's making things intrinsic. Because if everything was extrinsic we're just going through the motions and that's no fun in life at all."

As she mentioned throughout conversations, Lauren always tries to select courses to teach that are of interest to her current students, and, make the content relevant to them. She viewed this as a motivator for her students:

> "So I think as motivator wise, I try to always try to get them to see like, this is your future, this is your job. For some of the girls I even tell them, even if you're going to work in daycare, like my daycare sends me notes. You know, you need to be able to communicate these certain things. Or, you need to even be able to type a new policy because it's COVID. You have to be able to do those things. So it's that relevant piece."

Lauren went on to explain that at times, making assignments relevant to each student can be a challenge. Especially when her younger students are not yet thinking about their future careers.

> "I think sometimes, making it relevant, some just can't see it. You know? And it depends on the age. Seniors sometimes can see it you know, but that sophomore age is tricky. And sometimes, they don't, like they just don't see it."

To overcome this challenge, Lauren described her relentless pursuits to ensure her students can link her coursework to something relevant in their lives:

> "I just try to find something that relates to them, you know? Like I ask them, "do you have a job right now? Are you in another CTSO? Are you in National Honor Society? Are you wanting to be in this? These are things that are going to help you." So trying to find something, anything, that just remotely kind of relates to it, to just kind of spark, spark something."

Natalie's experience with incorporating writing into her Communication and Information Systems CTE classes was shared with those of Lauren, Debbie, and David. As she had commented before, the fact that her courses are elective in nature impacts how she accomplishes her work. She explained:

> "For me, primarily, it's making it relevant. Since they're all elective courses, they choose to be there. Whether it's their counselor that said you should take this course or you have to fill a block on your schedule, essentially they, somehow, chose to be there. So I have to provide a connection to life after high school. Or life outside the four walls of my room. And so some way, I have to make that content relevant."

As an example of making her courses relevant to students, she went on to explain:

> "The information technology classes, the added value is leaving the course with a certification that they can put on their resume, they can put on you know, a scholarship application, or a job application. Added value to a course, especially for kids today, is really important for them to know that they're getting something out of it that takes them beyond, beyond high school or outside of our four walls."

In all, Natalie shared that when it comes to motivating her students to write, "I think that's where it still comes back to relevancy. Part of that is my elective area, but I have to show them how the writing is relevant to what they're doing, or life after high school, or whatever it might be. In order to motivate them."

Lastly, Michael also shared his quite direct assessment of how to ensure his students are interested in the writing he views critical to their success after high school. As a local FFA chapter Advisor, Michael reported that he often helped his students prepare for regional, state, and national-level competitions. Outcomes of these competitions regularly includes recognition for the student, school chapter, and school district. He explained:

> "I think FFA is the carrot, or the recognition, I think sometimes that's the motivation for students. You know, there are some students that grades do not motivate them. And so, you know, they're going to get by with the bare minimum. Their motivation is to pass. And if it requires writing, they'll put in the bare minimum to get it to pass. But, and I think this is where CTE, you know, they have the opportunity for recognition through CTE that often, that is where the motivation comes from. You hate to think that, that extrinsic motivation is what we need for students, but in some cases it is."

Michael, like the other CTE teacher participants, described the many ways he tries to motivate his students to write, and generally be successful. Leveraging the unique qualities of CTE appeared to afford these teachers the flexibility necessary to ensure their curricula is relevant and of interest to their students. As a result, many shared these practices have had and continue to have positive outcomes related to students' motivation to write and excel in other areas of their programs. The practices, however, largely depended on how confident the CTE teachers' felt in their own ability to write and develop their students' writing skills.

**Teacher Self-Efficacy**

The exploration of the many experiences of these CTE teachers illuminated many potential factors supportive of writing taking place in CTE. Across the board, all participants attributed some of their instructional practices to their own confidence in the task. Additionally, it was through conversations surrounding this subtheme that the

question of, "*whose job is it to teach writing?"* finally arose. Numerous comparisons to the work of English/language arts teachers were made, and is discussed in detail in the collaboration section.

Through FFA or other related Agriculture, Food, and Natural Resources courses, Michael reported purposefully including many writing assignments into his instruction. When asked about the confidence he has in his own ability to write, he shared:

> "I wouldn't say I'm the, oh you know, the greatest at writing. But, it's a process. I'm still learning how to write. And, I think that, you know, that's just a skill that we have to continue to develop. We are all still learners and we are all still teachers, you know."

He went on to explain these beliefs. He continued:

> "Coming out of high school I was not a strong writer. I had four different language arts teachers in my high school career. And you know, I just didn't feel that was very, a great part of my, my strengths. But you know, it's one of those things where I think the longer you teach, the more you learn and you know I tell students that the day you quit learning is the day your heart quits beating. You know?"

Michael's learner approach to writing was also evident when he shared his confidence in developing his students' writing skills. He stated:

> "I feel very confident. My co-advisor and I, we have a system here, when I read through an application or material or a speech, for a student, I read more from the technical agriculture side. Where I'm like, "no this is not right. This is not the science of Agriculture" or things like that. Where she, she looks more maybe for word usage and grammar and things like that. So, it's kind of yin and yang."

Collaboration with other teachers was a recurring theme and is woven throughout these participants' descriptions and explanations.

David also reflected on his writing self-efficacy while he described the ways he includes writing in all aspects of his Skilled and Technical Sciences courses, even when

the students aren't quite sure why he insists on proper grammar and strong writing outcomes. Lightheartedly he shared:

> "And the kids laugh at that. They don't, you know, they're like, "Why? It doesn't matter because it shop class." And I said, again, "go back to you as the technician and the customer, and if they see "this" they're not going to trust you. So that's why I do it."

At times resonating with the driving purpose and preparedness subtheme, yet also illustrating the conditions needed for CTE writing, David continued to reflect on his ability to develop the writing skills and motivation of his students:

> "You know, I actually, I feel pretty confident because I've spent a lot of time on it. Our district have set goals for teachers every year. And so, we look at our student data, and I think a lot of districts do this. They look at student data and they see well, "how can we, you know, reach these kids?" And it always seems to be math and writing in the CTE areas. And so, yeah, that's why I started doing a lot of the technical writing, which was just to get students involved. That, and helping those students, bring them up to another level, and just to get them to do it more. Because I think, the more they do it, hopefully, the better they are at it."

David went on to describe the writing skills he feels are most important not only for his students to achieve, but his confidence in helping them:

> "My confidence too, is, you know, like I've said. I've had to read through stuff. And I can probably do really good with where commas are supposed to go, and capitalization, and spelling. Just trying to organize students' thoughts. So, I think, you know, those are all the real basic things of being a good writer, is you can organize your thoughts, and you can do some of those things. I think it's still pretty effective in that way. And I think I'm, I think that's why I think I am fairly decent at it too, to make sure that students are actually getting the right things written down."

Like many of the other participants, this confidence, in part, came from his own writing experiences. David concisely explained, "I guess I've got two master's degrees, and so, I've had to write a lot. And so, I think what I've learned from those, I've also applied to my classrooms."

Debbie echoed what both Michael and David shared regarding her confidence in her ability to write. She additionally included a qualifying statement relative to context:

> "I'm pretty confident in my writing ability. If it is email, career-purposeful writing, I am more confident. Again, I mean, I'm always going to have somebody proofread if I'm doing a research paper or something along those lines. I'm always going to have someone else look over it. But as far as professional writing, I'm pretty confident in what I write."

Everett shared in his cheerful manner an honest assessment of his own skills and the confidence he has in helping students develop writing skills. He shared, "Oh I feel pretty confident [in my own writing]...I'm just not good at editing. He continued:

> "I honestly tell kids, I tell people, I would be the worst English teacher! Like, ever. Cuz, like, I'm just a I'm a slow reader anyway. It takes me forever to read things. And, so, I'm getting slightly quicker, but I wouldn't be a very good English teacher."

Going on to explain that this deters him some from including many writing activities into his course, he shared, "I don't, I don't know if I do a lot to develop their writing abilities to be completely honest." Everett's ongoing smile dimmed slightly as focus on this topic continued.

Lauren and Natalie both described the confidence in their writing as relatively low. Lauren shared, "I don't feel like I'm a strong writer. Haha! Like you know, I think it's just a personal thing that I don't feel that I'm a strong writer." She expressed this belief as she described helping students develop writing skills in her FCS courses. She went on to explain:

> "It wouldn't be, I don't know, I wouldn't say it would be a strong suit. Like, truthfully. You know, I have them write and I have them do stuff…like, health careers, I have them do a research paper over something. And they will, you know, they'll ask some questions like, "do we need to, you know, cite something this way?" And the basics and stuff, you know, I'm totally comfortable with. But I think when it really comes to, you know, I don't know, down to the nitty-gritty part of developing it, no, I wouldn't say, I wouldn't say that's a comfort part."

When asked about why Lauren, given her own personal and professional writing accomplishments, did not feel confident, she elaborated:

> "I think it's more of a fear, like, I'm worried I'm going to teach you wrong. Ha! I don't know, I think it's more of a personal thing. I don't know. I don't know why I think that I'm a bad writer. Maybe, I don't know, it doesn't come, it doesn't come easy, you know? I mean, citing and stuff like that, there's lots of stuff out there to help you. But I think when it comes to grammar and things like that, that's just something that never, I mean, came easy. So when it comes to helping the kids develop, you know, that stuff, I don't know."

In conversations with Lauren, she described fewer writing activities as being incorporated into her courses as compared with the other CTE teacher participants. With a very similar tone, Natalie described her feelings towards writing and her inclusion of related instructional activities:

> "I avoided English 102!! And I don't know if it's just an internal thing, because I mean…I know the value of it, and I know the importance of it, obviously I've been able to function in my world. But, I know that it's needed in a lot though, in a lot of other places. So, I mean, not that I, I probably can do it more often, you know, but everybody's busy."

Natalie continued describing her beliefs about writing and developing her CTE students' writing skills and motivation. Interestingly like Debbie, she made a distinction between genres, contexts, and the domain-specific writing self-efficacy she experiences. She explained:

> "My trouble that I have with writing, is that I am very literal, kind of concrete, and I think that's probably why I have a hard, I have a harder time with symbolism. My British lit class in high school was, it was like waaahhh! I mean, so if I'm writing factual, and I'm writing more concrete and literal kinds of things, I'm much more confident and I can teach my students to write those things."

To empathize with some of her students and their reluctant to write, Natalie shared of her work during a previous summer's professional learning experience. While she shared it was difficult to get started, she found great success. She went on:

> "And so that seemed to help me, and so hopefully even sharing some of my personal experiences about writing would help motivate them to understand that sometimes you just got to, you know, we all have writer's block. So to say. And you know, you just have to get words on a page."

The confidence each of these CTE teachers expressed in their own ability to write and while helping develop the writing and writing motivation skills of their students was at times, clouded by additional challenges. While always framed as a challenge, finding the time during a short class to implement a writing activity or finding the time to grade writing products resonated as a condition for writing in CTE.

**Time**

The time it takes for students to write and for these CTE teachers to grade writing products was identified by participants both as a challenge and a potential area for collaboration. While writing was clearly noted as important, relevant, and necessary for the preparedness of their students, participants still struggled with balancing their feelings and instructional considerations.

David was one of the most vocal participants about the importance of writing in his STS courses. However, when questioned about challenges to implementation he revealed:

> "Finding the time really. You know, time and motivation I think are kind of linked together. Because, if a student is not motivated to do it, they're really not going to put the time into it either. And, same thing for me. When you think about all the projects we try to do and the value I put on learning those things, trying to do the writing has to fall in there somewhere. And it's sometimes, it's difficult. Because one, I may not be motivated because I have to sit down and grade those papers. But I think too just, putting the time in to try to do that is probably the most difficult and the biggest challenge is to have kids do that, because we put so much value on the actual project-based learning, we don't always think about taking a day to do a writing project.

While not elaborating on if or how writing could be a part of such a project, David did share some of the ways he currently organizes his instruction. He explained:

> "I found out that for most of the students that I teach, they have to, they have to do it. It's a hands-on process. And so, I think that's probably obvious for skilled and technical sciences. But most of the kids, I know, they just learn better by doing it. So, we spend probably a quarter of the time in the classroom. I've really condensed what I teach down to those, oh, those real specific things that I want them to know. And then we go out and apply those in the shop, either in the automotive shop or in the welding shop."

Writing would fit into that quarter of classroom time, David explained. Though earlier acknowledging the importance of writing, especially occupational writing, he shared that often he finds using the time *outside* of the classroom also as motivator when asking students to write and carry out other, seemingly less desirable activities. David continued:

> "I think you just explain it to them that, hey, you have one day in the classroom and then the rest of the week we're out in the shop working. I think it's just, kind of, dangling that carrot in front of them. Because they know, and I think too, you've built up, if you build up enough respect with your students and rapport with your students they trust you. So, if you ask them to do a writing project, they do it. Because they know that [Mr. David] is not lying, you know, he's not lying to us, we're not going to do this again tomorrow. So let's put our time in."

Everett also focused on time constraints relative writing in his CTE courses. While he described assigning one large writing project nearing the end of unit, he lamented, "It's kind of, it's a lot to read at the end of the term. It's kind of like, you don't want to do that." As he did throughout interactions, he continued describing with rich detail his thoughts on the topic as they arose for both his students and himself:

> "I think a difficulty, honestly, is just laziness. Like students, they just, and I think that goes for, laziness goes for all of us, I mean honestly. Laziness, not laziness. I don't want to say I'm lazy, but, like that could also be part of my reason for not assigning, maybe more reading and more writing assignments. It's just so many, there's only so many hours in the day. And I like to get stuff back to them quick. So, I don't want to assign them arbitrary things, per se, which is why I like to pick the things that they write on if I have them do anything in econ. But, my elective and upper-level classes, they have more motivation. They're not going to be,

> you're not going to be as lazy because they have, they have an interest in that area and they want to know more."

Everett's reflections underscored how many of the participant-identified conditions for CTE writing interact with each other, and, with the other overarching themes that emerged.

Similar to Everett, Natalie identified time as one of the necessary factors for writing in CTE. While many of Natalie's Communication and Information Systems courses focus on student mastery of discrete skills (such as creating a pivot table in Microsoft Excel), she described still including writing in her courses. Related to barriers on those writing tasks, Natalie shared:

> "Time. I would say the primary one is time. I mean, when you have things like business plans, and you know, you have a class of 15 to 30, whatever it may be. That [assignment] is a pretty lengthy one. I can't, I can't officially give them feedback in a timely manner for them."

While making a clear distinction between type and length of writing tasks, Natalie continued:

> "The shorter ones, like their reflection questions, I did the leadership habitudes in management and leadership. And we did those weekly on Mondays. I'd have them answer the questions and write and reflect about those images. And that was, a little, a little easier to process as far as time management and stuff."

Finally, Debbie emphatically explained the impact of time on her use of writing in Health Science courses. However, she provided her solution for overcoming this shared challenge, collaboration.

> I don't have time to teach it. I mean I'm very set into the curriculum and I can say it's not within my standards to actually teach that APA research paper. I still assign them, and it's above and beyond what the standards, the district requires. So, the district requires, I feel if I could do it in collaboration with English the kids get more out of it. I just feel like they are the experts. I mean that's their curricular area, so…"

Collaboration was oft-cited by participants as a current practice helping them intentionally embed writing activities into their CTE course.

**Collaboration**

All of the CTE teacher participants pointed to collaboration as a necessary condition for writing in CTE. Some shared specific examples of effective professional learning opportunities they had participated in, while others dreamed out loud of collaboration they feel would positively impact their efforts. Others, including veteran Agriculture, Food, and Natural Resources teacher and FFA advisor Michael, described meaningful collaborative experiences that have led to their feelings of high confidence in this area.

Michael seemed to view collaboration from two distinctive lenses: one very personal, and one inclusive of his whole school. Through talking, Michael often credited much of his success and ways of thinking to his mentor, the Agriculture, Food, and Natural Resources teacher he replaced after his moving into administration. He poignantly stated:

> "Mentoring was very beneficial to me. I would not be where I am today without the mentoring. And I think that those are some things that would be very beneficial, you know, especially in the writing piece. Because I know sometimes, I don't know in the other CTE areas, but I know in agriculture there's a lot of teachers outside of my room, or teachers that think, "oh that's just sows, cows, and plows" and whatever. You know? "He's just an FFA teacher," things like that. Where you know, I think if you can collaborate and say, "no, this is actually what we're doing," you would, you could maybe do some things together and get, and get more done for the benefit of students."

In addition, Michael was one of the few participants who described whole-school efforts related to writing in any capacity. He explained:

> "Also, we've talked about [writing] as far as school-wide. You know, if Mr. Smith down the hall isn't going to take off for punctuation, grammar, you know, your

> basic writing skills. If you can get away with, when it says essay or short answer, two sentences, you know, they are going to use that against other teachers that have, you know, higher expectations. So I think that, your collaboration within your district, and understanding those expectations within your building, as well as within your profession, are important."

Focusing on whole-school or even across content areas within a school continued to resonate with participants.

David described how he and his school's English teacher collaborated to ensure students are learning transferrable writing skills, including a focus on their writing motivation. He shared:

> "They've actually seen a value because they've taken what they've started in my class and carry it over to another. And that's really helped them. And there's been good conversation between English teachers or whoever they're writing for, because they were able to start something in my class and carry it over. So sometimes that's a motivation for them."

When reflecting on the challenges he faces, David began to advance Debbie's beliefs about whose role exactly it is to teach students how to write, regardless of the writing activity's purpose. And like Debbie, David's working collaboratively was his answer for finding mutually-beneficial success:

> "Well, it's a conversation that I've had. It's got to be a two-way street, you know? I don't bring my keys to the English teacher and say, "hey, can you fix my tire by the end of the day?" Because that happens to me all the time! But you know, it's like, it's got to be a two-way street. I really want to work together with our teachers. Even the kids that aren't the CTE students. I still think there's value in technical writing and doing some of the things, because, you know, we focus so much entirely on some of the, like I said, the traditional books and things English kids have to read in those classes, that we don't ever get opportunities for kids to do any other exploration. So I think it is a two-way street that I really want to build more of a relationship with some of those people. In our writing and English because, you know, I, I can apply it, but I'm not the best at it. Just like you're not going to be good at fixing a tire. We just really have to work together. There's got to be more collaboration, I think, in that respect.

Elaborating on the uniqueness of CTE and other non-English areas as setting for student writing, David shared his current frustrations with trying to collaborate as follows:

> "As a CTE teacher, like I said, I know we really focus on our content standards. But I'm not an expert in English and reading and writing. But if we could have some type of guide or standards that are put together, like a collaboration between the two units to help in this…A lot of times it's just, you know, "here's what the English department does and that's what you do", you know, "build off of this." Well, that's, that's hard to do! So, I would just like to see some more specific things, you know, brought into the CTE standards that we can specifically tie into our classes.

Although still very much encouraged by its potential, David went on to share his hopes for future collaborative efforts:

> "I'm hoping there's a two-way street where, you know, I would encourage writing in my class, but then on the same respect, my English teacher, I hope that they're going to also encourage some technical writing in their class. I've had other conversations with other instructors around the state on how do we increase writing in our areas? Because every single district is asking for it. And so, I think that's where we came up with a lot of this technical writing, writing out jobs, you know, whether it's in construction or automotive. And I have, and in my district itself, I think we've been pretty supportive, with our curriculum instructor and director of learning. They've really helped focus and give resources as well for students. And so, yeah, I think they really just had a lot of support overall and a lot of good conversations from fellow CTE teachers on how to work together and how to build these students up."

Debbie mentioned early on that she works closely with her English teachers as she teaches in a career academy. She articulated how she collaborates to ensure she is still able to incorporate writing into her Health Sciences courses. She recalled:

> If it is writing an APA paper, I leave that to my English teachers. So when I assign their research paper, I do it in conjunction with our English teacher. So, it is a joint venture, so to speak. So they take care of the writing style and everything, I take care of the content."

When asked about what supports could better aid her in her including more writing into her CTE classes and helping students develop their motivation to write, again collaboration with colleagues was at the forefront. She shared:

> "Just hearing other teacher's ideas, and what they've come up with. I mean I love picking other teacher's brains. And going to workshops. And you know even when I'm a presenter, it's nice to talk to other people and get their ideas, and even social media is awesome for teachers and groups. There's, you know, all these different subgroups inside social media that teachers are so willing to share. Teacher collaboration is probably my big one."

Lauren similarly discussed collaboration with fellow CTE teachers when thinking about supports for integrating writing into her classes:

> "I know at one of our professional developments I went to, we went through with other FCS teachers and like wrote out lesson plans that involved writing. And sometimes I think it's just to have, you know, you could have a whole professional development day of doing that."

She recalled fond memories of working side-by-side with fellow Family and Consumer Sciences teachers from around the state during this experience. Lauren continued:

> "And I think it's just sometimes hearing from other teachers or seeing those resources like, "Oh yeah, like I could easily do that!" Because sometimes I think, I don't know, me specifically, when I hear like "writing," sometimes your mind just goes, "Ugh. They have to have a paper or write a paragraph about that." And there's probably just so much more that, that I could do so, I don't know, [we need] more collaborative professional development that I think is more, like specific to the content."

Finally, Natalie echoed what many participants also expressed in that collaboration with their English/Language arts teacher was a mechanism to support CTE writing. In her school, Natalie shares planning space with other content areas. It just so happens her desk-neighbor is the English department. She explained:

> "So my desk is right next to the English department. The CIS and business department desks are right there. So I have access to, and I've checked in on, I'm like, "How do you guys teach this?" You know? What are you using for reference styles?" In my business plan I don't necessarily, like, prescribe that you have to use MLA, or you have to use APA. But I tell them you have to use something. You have to use an accepted professional citation method or citation style. And depending on which course they're in, some of the English teachers use MLA, and some of the AP Lit I think use as APA. And some of them, I actually think have taught them both. And so, I reference those and if I recognize things I'm like, I know that's not how your English teacher taught you!"

While Natalie spoke of her initial collaboration and opportunities for collaboration in a positive manner, she also commented on the age-old struggle these CTE teachers felt between the academic "core" courses and everything else. She went on:

> "We still have, some understanding, and some, I don't know, siloed feelings - this is core and this is CTE, and we're not going to mash. It's gotten better over the years, but there's still room to grow. We can still help each other understand that, you know, we can't live without the other!"

When Natalie had the opportunity to describe her thoughts on helpful strategies or professional development CTE teachers may experience with regard to embedded writing instruction and developing students' motivation to write, she reiterated what many had stated:

> "I like to have those writing opportunities, or like when I see when we have sessions that are, you know, "integrating writing into XYZ content area". Those are, those are always helpful. So those types of professional development opportunities give us the, kind of, checks and balances within our system so to say, to know we're on the right track."

Opportunities to collaborate undeniably resonated as critical for CTE writing. Not only were role-alike collaborations described as helpful, but also those interactions with other teachers in the school, especially the English teacher.

While overlap in subthemes was prominent throughout discussions with participants, the four notable constructs provide insight into the necessary conditions for CTE writing. The interplay between CTE teachers' own self-efficacy for writing and developing students' writing skills and motivation and that of the perceived and real time constraints were shared in participants' accounts of their day-to-date challenges. Above all, these CTE teachers indicated how they collectively leverage the relevance of their CTE courses and the interest their students have in topic. In addition, they highlighted the

critical role collaboration has on their ability to overcome challenges with implementing writing into their CTE classes.

## Chapter Summary

This chapter describes findings directly related to the central research question**:** *How do CTE teachers view their role in developing students' motivation to write?* Sub-questions focused on constructs that further explored the central question. Overarching themes were identified through an iterative process and by coding transcribed interview data using NVivo data analysis software. Through the rich conversations had with each participant and each subsequent interaction with the transcripts, a true sense of how these CTE teachers feel and experience their role as a CTE teacher was gained. Participants were generous with their time and also their candor and willingness to engage in a topic they may not have given much thought to previously. Namely, developing students' motivation to write.

Based on this writer's analysis of the frequency of phrasing and ideas, four overarching themes emerged that describe the key elements of the teachers' experiences with writing in their CTE classes: (1) a Driving Purpose, the (2) Uniqueness of CTE, the (3) Importance of Writing, and the (4) Conditions for CTE Writing. Expressed in participants' own words, narrative descriptions provided rich accounts of sub-themes illustrating and providing structure to the four overarching themes.

# CHAPTER 5:

# DISCUSSION

The purpose of this interpretative phenomenological analysis was to describe the beliefs of CTE teachers relative to their role in developing students' motivation to write. Through a constructivist lens the central research question was: *How do CTE teachers view their role in developing students' motivation to write?* Sub-questions were then posed that explored participants' current self-perceptions as a CTE teacher and relevant life experience that influences instructional decision-making. Overall findings are presented by theme along with each theme's connections to each of the other themes.

The major goal of the present study was to better understand the essence of the shared experiences of the CTE teachers in this study about the role of writing in CTE instruction. In advance of the interviews, a review of literature provided a framework for establishing the study's relevance specific to writing, instruction, motivation, and CTE. The context for which understanding and interpretation of the interview data was provided by a review of the processes of writing, writing self-efficacy, teacher beliefs, and writing's potential role in CTE instruction.

The results of this study were aimed at contributing to the larger literature base focused on the shared lived experiences of CTE teachers with a particular focus on the experiences perceived as impactful to writing and instructional decision-making. This final chapter discusses the findings and their significance, limitations of the current study, and directions for future research.

## Discussion of Findings

The overall findings of the current study reflect the CTE teacher participants'

perspective that not only do they have an important role in developing students' motivation to write, but that their roles are deeply personal, unique, and conditional. Their own personal experiences as teachers and a desire to ensure students are well prepared for transitioning to their next step in life were seen as impactful contributors to the participants' beliefs and subsequent curricular decisions. Overlap across main themes demonstrated the interplay of participants' dynamic beliefs and actions. Participants often made reference to their content area's uniqueness when discussing conditions for CTE writing. Similarly, the shared driving purpose exuded from participants overlapped with descriptions of the importance of writing and also the conditions necessary for it to occur in CTE classes. Taken as a whole, the overarching themes describe and amplify CTE teachers' experiences relative to developing their students' motivation to write.

**Driving Purpose**

The *driving purposes* of the CTE teacher participants emerged as key undertones of most instructional decision-making. Data reflecting early exposure to CTE and CTSOs, first-hand knowledge of and experience working in the industry for which they teach, and the desire to prepare students for life after high school surfaced throughout interviews as driving purposes for their being a CTE teacher and the instructional decisions they make.

Recollections referencing early exposure to CTE and CTSOs arose in the current study. These recollections reflected vivid memories of interactions with parents who taught CTE along with life-directing guidance from their own former high school CTE teachers. Participants shared their appreciation for how these interactions influenced their functional beliefs about their current career and role as a CTE teacher. Interestingly, none

outwardly articulated serving in the same capacity for their own children or in finding the next generation of CTE teachers.

Participants spoke of these driving purposes positively and noted their interrelatedness. The effect of their purpose-driven work was prominent throughout conversations on curriculum and pedagogical decisions. Ultimately, when describing participants' driving purpose for their work and its relationship to developing students' motivation to write, findings were consistent with extant literature on factors that contribute to a teacher's self-efficacy and the conditions needed for developing students' motivation to write (Bruning & Horn, 2000; Gibson & Dembo, 1984; Graham, Gillespie & McKeown, 2012; Graham et al., 2001). Similarly, data reflecting accounts of how teachers' beliefs and confidence impact their teaching practices provides support for Bandura's (1986) social cognitive theory and its implications of self-perceptions acting as mediators to what individuals do with the knowledge and skills they have (1997). Participants shared how their knowledge of CTE and a specific industry drives their creation of authentic writing (and other) tasks. Similarly, their deep desire to ensure the preparedness of their students helps foster a positive emotional environment where students feel personally supported through one-on-one interactions. Teachers' self-efficacy and its impact on instructional decisions will be discussed further later in this chapter.

While it was not expected to be found as such a prominent theme, the *driving purposes* expressed by all participants helped illuminate the subjective lived experiences of these CTE teachers. These rich autobiographical accounts contributed to the overall

essence of how CTE teachers' perceive their role in helping develop students' motivation to write.

**Uniqueness of CTE**

The next overarching theme that emerged as a result of data analysis was the *Uniqueness of CTE*. This theme reflects participant data where they defined themselves and their work as markedly unlike that of their non-CTE counterparts. A guiding assumption of the current study was that CTE courses are fertile ground for helping develop students' motivation to write because of its seemingly unique affordances. Through conversations with participants, the unique qualities that contribute to this ideal became a personal accounting of how *what* they teach and *how* they teach is distinctive to CTE. Three subthemes highlighted participants' intricate reflections and comparisons, including the career and future focus of their courses, their alignment to the workforce, and the great flexibility afforded to them in comparison to their "core" academic content area colleagues.

In reviewing findings for the theme *Uniqueness of CTE*, most participants noted the fact that the courses they teach are elective. This disclosure was both confirmation that their courses were not required for students to graduate high school, and also expressed as evidence of students' interest in the topic. Participants shared similar accounts of student interest in relation to their future career aspirations, and identified their ability to make the content relevant to students as one of the primary unique factors of CTE classes.

Along with capitalizing on the interest of students, participants shared a keen focus on and understanding of the relevance of their classroom experiences. All

participants provide rich examples of how they ensure the content they teach aligns with business and industry expectations. Notably, much of this instruction includes the application of knowledge and skills, which includes expanded learning opportunities such as CTSOs. Data collected underscored that one factor making CTE unique is that students and parents find value in the courses, thus they choose to enroll in place of other course options. Always ensuring this relevance and value, however, was additionally found to place an added burden on CTE teachers. Overall, though, the flexibility identified by participants as being afforded because of the fact their courses are not required or tested resonated as significant and positively unique. Together, the factors participants uniquely ascribed to CTE support and echo research outlining conditions that enhance motivation to write and cognitive theories of writing development and expertise (Bereiter & Scardamalia, 1987; Bruning & Horn, 2000; Flower & Hayes, 1981). Findings positively contribute to the limited research on CTE and it being identified as an ideal setting for contextualized writing and literacy instruction (ACTE, 2009; Miller, 2009).

**Importance of Writing**

The third overarching theme depicted ways participants framed writing and writing experiences as *important*. Stories that registered participants' *driving purpose* and leveraging of the *uniqueness of CTE* again signaled the interplay between teacher beliefs and practices and contributed to the overall essence of CTE teachers' beliefs about their role in developing students' motivation to write. The three subthemes for this overarching theme – including writing activities, situating them within a real-world context, and approaches to assessment and feedback – offer examples of how participants embrace writing as central to instruction in their content area, while at the same time, identifying

the key role teachers' own self-efficacy for writing plays in relation to their pedagogical decisions. This importance placed on writing and its subsequent inclusion in participants' class is consistent with related scholarly literature reviewed on teacher beliefs (Pajares, 2003; Shell, Murphy, & Bruning, 1989; Wigfield & Eccles, 2000).

The numerous and various examples of writing taking place as collectively described by participants was a pleasant and unexpected finding. While there remains a lack of research positioned within CTE, what is available did *not* suggest findings from this study would include 100% of CTE teacher participants' providing students multiple deliberate writing activities (ACTE 2009; Loveland, 2014). References of the real-world context of these writing activities was frequent and reflected the CTE teachers' intentional curricular alignment to workforce demands and their students' personal career and future focus. Findings provide support for existing research on disciplinary literacy and its use in CTE (Graham & Perrin, 2007; Loveland, 2014).

Data specific to the writing assessment practices and feedback CTE teachers' provide to their students was consistent with relevant literature on self-efficacy and writing self-efficacy (Bandura, 1997; Bruning & Kauffman, 2016; Dweck, 1986; Graham et al., 2001; Guskey, 1988; Pajares & Viliante, 2006; Skaalvik & Skaalvik, 2007). Participants who identified as having high-self efficacy for their ability to develop the writing skills and motivation of their students described both a writing motivational and domain-specific skill development feedback goal. Participants who self-identified as not having high writing self-efficacy tended to describe assessment and feedback goals related to "the basics" of writing, such as grammar and punctuation. The interplay between participants' beliefs, goals, and actions was no more apparent than how teachers

described approaching assessing their students' writing, providing additional support to Bandura's (1986) social cognitive theory.

The nature of self-efficacy being domain specific was also supported by data collected (Moreno, 2010). While all participants expressed more confidence in their ability to provide domain-specific writing feedback than domain-general writing feedback, it was still heavily dependent on how participants felt about their confidence in their ability to develop the writing skills and motivation of their students. Interestingly, even when participants expressed that they were highly efficacious in not only their own ability to write and teach students relevant content in an engaging manner, they still viewed "teaching writing" as the responsibility of the English teacher.

Numerous examples were provided in the data of participants commenting that teaching writing skills were not "my job," and that anything more than writing "basics" should be left up to the English teacher. These accounts seemingly neglect the noted transferability of these skills when taught within the context of CTE, and that impact on students' motivation and self-efficacy to write in other areas. These findings support the notion that instructors must be aware of how their own self-efficacy beliefs impact their teaching practices, as their responsibility includes not only developing student writing competence in the context of their course, but also confidence in the belief that they will be successful in the task (Pajares, 2003).

**Conditions for CTE Writing**

The final overarching theme defined the participants' view of the conditions under which they choose to include writing activities in their CTE courses. Data specific to four subthemes demonstrated participants' shared experiences related to implementing

writing activities relevant and interesting to students, having the confidence in their own ability to write and develop students' writing skills and motivation, time to effectively incorporate writing activities into their instruction, and collaborative support from role-alike and non-alike peers. As is the case with the other three transparent circles of the radius, these *Conditions for CTE Writing* were heavily related to all other overarching themes as one cannot be fully understood without the context and understanding of the others.

The CTE teacher participants' reflected on their roles relative to developing students' motivation to write most often when discussing the relevance and interest of their writing activities. Through this relevance and interest, participants' recounted the unique nature of their courses being elective and the flexibility they have to align the content of their course and instructional practices with the interests of their students. This interest, in turn, helps motivate students to engage in the writing task. Engaging students through discipline-specific, relevant, and authentic writing experiences is supported in scholarly and contemporary literature as a means to help develop students writing motivation and disciplinary literacy (Bruning & Horn, 2000; Harper, 2013; Loveland, 2014; Pajares & Johnson, 1996; Pajares & Viliante, 1997).

Through interactions with participants, the nature of their personal writing self-efficacy and teaching self-efficacy was fascinating, and supports literature reviewed on self-efficacy, teacher self-efficacy, and writing self-efficacy (Bandura, 1995; 1997; Graham et al., 2001; Pajares, 2003; Pajares & Johnson, 1994; Skaalvik & Skaavlik, 2007). All participants attributed at least some of their instructional practices to their own confidence in successfully implementing the task. Though, those who conveyed

more confidence in their own ability to write and develop the writing skills of their students also demonstrated including more writing activities in their courses, providing more meaningful feedback about writing skills *and* motivation, and generally described their experiences with CTE writing in more detail.

Interestingly however, even when participants expressed moderate to low confidence in their ability to further develop the writing skills and motivation of their students, a distinction was made relative to their confidence with domain-specific writing tasks, those directly related to their CTE career area. Consistent with scholarly literature on the domain-specific nature of self-efficacy, participants did feel more efficacious about developing writing in genres and contexts related to their career field, such as writing a business plan in a business management class or a plan of procedures in an auto mechanics class (Moreno, 2010; Pajares, 2003).

Aside from teachers' own self-efficacy for writing (acknowledged or not), time constraints were among the top barriers to implementing writing reflected in participants shared accounts of their personal experiences teaching CTE. Data revealed frequent comparisons to non-CTE teachers and assigned partial, if not full, responsibility for "teaching writing" on the English/language arts instructors. Those participants with high self-efficacy for helping develop the writing skills and motivation of their students tended to refer back to ensuring the sufficient preparation of their students for the real-world and postsecondary tasks ahead. This authenticity of purpose finds support in the work of Bruning and Horn (2000) and Pajares and Valiante (2006) when providing supportive conditions for developing motivation to write.

Lastly, data collected amplified collaboration as a necessary and desired *Condition for CTE Writing.* All participants described individual accounts of meaningful collaborative experiences that had a positive impact on their writing instruction, or, provided an analogous experience within a different context but suggested the same support is needed for them to feel more confident in their ability to provide it with writing. Few sustained collaborative interactions between English/language arts teachers and CTE teachers were apparent from data reviewed, yet all participants shared a desire for it. Whole-school approaches to writing instruction along with role-alike communities of practice were among the strategies suggested for added supports. Participants described these experiences as helping them build self-efficacy through vicarious and mastery experiences, which are among the primary sources of self-efficacy as described by Bandura (1997).

## Implications of Findings

Students in the United States continue to obtain only partial mastery of the prerequisite writing knowledge and skills deemed fundamental for their grade level (U.S. Department of Education, 2011). At the same time, American workforce leaders declare a misalignment between their needs and the writing proficiencies of their newly hired employees (Vaanest, 2016). An acute urgency exists to ensure students leave high school with the knowledge and skills needed to successfully transition to postsecondary education and careers. Nonetheless, writing instruction over time has largely remained unchanged. While English/language arts teachers continue to shoulder the primary burden of writing instruction, an opportunity has perhaps been missed to leverage the

unique affordance elective, CTE courses may provide with regards to positively impacting student engagement, and thus their writing (and other) outcomes.

The overarching purpose of this study was to contribute to the overall body of knowledge related to best practices in writing pedagogy, teacher beliefs, and CTE. Specifically, this study sought to understand CTE teachers' perceptions and beliefs about their role in developing students' motivation to write. Participants shared anecdotes reflecting a myriad of influences that contribute to their beliefs as well as their pedagogical decision making. Notably, efforts to connect classroom writing activities to real-world and authentic purposes was raised as a priority for CTE teachers. Participants recounted their view of why writing is important and how they share that message with their students. Together, this suggests conditions for developing motivation to write are at least partially resonant in CTE classrooms.

Given the nature of CTE classrooms as described by participants, findings of this study additionally suggest that students may have an advantage related to navigating the cognitive demands innate to writing if done so in the context of CTE. As students self-select into a course of great interest to them, they continue to develop their background knowledge in a setting and context that is interesting and meaningful, and recognized as valuable to their future goals. Additionally, because CTE course are uniquely aligned with industry needs and workforce demands, students are introduced to complex technical vocabulary and writing situations. The many complex and recursive processes needed to achieve success in writing and transferring those skills to other contexts seem more favorable, given the conditions of CTE classes (Flower and Hayes, 1981; Graham et al., 2012). With each successful CTE writing experience, students' motivation to write

may similarly be positively impacted (Bandura, 1997). Therefore, this study also provides positive implications for building students' writing self-efficacy by supporting CTE teachers to purposefully incorporate real-world writing opportunities and explicit writing instruction in their classes.

Along with the implications for students' motivation to write, this study additionally contributes to the body of literature on teacher self-efficacy. The beliefs participants shared about their own writing self-efficacy and their self-efficacy for helping develop the writing skills and motivation of their students were consistent with the curricular decisions made in their classrooms. Those CTE teachers with higher writing self-efficacy described incorporated writing more intentionally in their classes and focused on multiple factors for assessing and proving feedback. In contrast, those with lower levels of writing self-efficacy demonstrated including fewer writing activities and provided less feedback on things unrelated to their specific domain of expertise. These finding not only support the growing body of scholarly literature on teacher beliefs, but suggests helping CTE teachers developing high levels of writing self-efficacy and self-efficacy for teaching writing may impact the instructional decisions they make, ultimately impacting the writing instruction they deliver. In other words, if CTE teachers are to meaningfully include writing into their classes, they must first feel efficacious in doing so. Professional development offered to CTE teachers and the pre-service training provided to those aspiring to become CTE teachers should consider teachers' writing self-efficacy.

Another key implication of the current study comes with the understanding that significant and meaningful writing was most certainly taking place in CTE classes,

adding to the very limited body of research on the topic. Importantly, results of this study recognize that writing is already taking place in CTE. These environments are seemingly well-suited to develop students' motivation to write, and suggest that supports needed to magnify the frequency with which writing is taking place in CTE is not nearly as up-hill as was originally believed. Given the recognition of the importance of writing by CTE teachers and their choice to already incorporate writing into their classes, focus can now be directed to the supports needed to help them develop a learning environment that intentionally promotes "functional beliefs about writing, fostering engagement using authentic writing tasks, providing a supportive context for writing, and creating a positive emotional environment (Bruning & Horn, 2000, p. 25).

The overarching *Conditions for CTE Writing* theme outlined key support levers for both practitioners, pre-service educators, and professionals who provide learning opportunities for teachers, such as state education agency staff. Results of this study suggest that teachers value collaborative opportunities with their peers above most else, where they are able to see themselves succeeding in examples provided by colleagues. Notably, outcomes of this study suggest participants desire a closer relationship with their English/language arts teachers but have largely been unsuccessful in accomplishing this. Given the low writing self-efficacy articulated by some participants, impactful and meaningful opportunities to demonstrate how successful collaboration could be accomplished seem advantageous. Additionally, the vicarious learning experiences provided to CTE teachers may help increase their self-efficacy for writing, and subsequently, their self-efficacy for teaching writing.

In all, the implications of this study suggest that CTE classes are unique when compared to non-CTE classes and do provide many affordances to students for helping them develop motivation to write. A great deal of writing was described as taking place in participants' CTE classes, adding to the very limited evidence of this fact. However, the self-efficacy of CTE teacher participants, as consistent with related literature, did appear to influence related instructional decision. Several conditions were identified as necessary for participants to include writing in CTE courses, which included ongoing references to peer-to-peer collaboration. This study contributes to the gap in the collective understanding of how CTE teachers view their role in helping develop students' motivation to write, and, how CTE can potentially be leveraged as a tool to increase student engagement. This engagement, in turn, may have the potential to increase the writing confidence and outcomes of both students and teachers.

## Limitations

This study provided data from six CTE teachers relative to their beliefs about their role in developing students' motivation to write. One teacher from each of the six different career fields available in Nebraska was selected to help identify essential yet variable features of the phenomenon across contexts. While four overarching themes emerged as reflective of the shared experiences of the participants, the nature of a phenomenological research does not provide for any direct or causal implication to be drawn. While seen as a limitation on one hand, the two-stage interpretation process (double hermeneutic) central to IPAs allowed for a richer and more complete analysis of the central research question, and remains a strength of the present study.

Another limitation of this study was time. During the data collection phase of the study, teachers were grappling with re-entry plans for the Fall semester given the COVID-19 pandemic. The CTE teacher participants were working to ensure the safety of their students in classrooms, labs, and shop based on a weekly-changing regional risk dial, and were also preparing for simultaneous remote and hybrid learning environments. While they were generous in taking the time to share their stories, a sense of urgency from both the teacher and researcher was present during interviews. Appreciating the overwhelming stressors added to these teachers' workloads, follow-up communications were limited but sent to participants for member-checking and validation purposes. However, the expectation of ongoing participation and communication was not expected. The breadth and depth of their stories may have been greater had the opportunity to connect on more occasions without thoughts of a pandemic been available.

A final limitation of this study is noted here, but was not overtly experienced throughout data collection. As the researcher's professional position within the state may have been perceived as a barrier to open and honest responses, participants shared deeply personal and open accounts of their experiences as a CTE teacher in Nebraska. An initial conversation with participants included details of how their privacy and anonymity will be ensured, and no participant chose to withdraw from the study or refuse to answer any interview question. Additionally, participant interviews were strengthened and supplemented by member checking to ensure emergent themes and conclusions drawn from the narrative accounts were accurate.

Lastly, the choices made in relation to participant recruitment and selection and interview questions asked represented the delimitations of this study. The sample was

purposeful and dependent upon participants' willingness to be interviewed. Efforts were made to ensure homogeneity in the size of district representation, years of teaching experience, and experience with CTSOs to better explore the perceptions and understandings of these particular CTE teachers and how they perceive their role in helping students develop motivation to write. Veteran CTE teachers (those with more than 5 years of CTE teaching experience) who had a solid foundation teaching in their respective content area, had a deep understanding of the purpose of CTE, and had demonstrated leadership or service to the career field in which they teach (such as through serving as a local CTSO chapter advisor, actively participating in CTE professional organizations, assisting with content area standards revision, etc.) were recruited. At the same time, participants were recruited across all six CTE career fields to potentially identify essential yet variable features of the phenomenon across contexts (Suri, 2011). Additional detail related to the positioning of the researcher within the study is addressed in Chapter 3.

## Future Research

Directions for future research include both narrowing and broadening of the current study. With a broader lens focusing on more CTE teachers across content areas and states, the shared experiences may provide additional support for the unique factors that contribute positively to developing students writing skills and motivation to write in CTE. Similarly, learning more about CTE teachers' beliefs about their self-efficacy for writing and teaching writing will help aid the development of collaborative (and other) teacher supports. Future research should additionally focus on the successful collaborative opportunities already provided to CTE teachers and those that should be

developed. For instance, identifying how, if at all, collaboration among pre-service English/language arts instructors and pre-service CTE teachers is taking place may help intentionally develop and promote these relationships in their future. Similarly, future research should examine local and statewide professional development opportunities for in-service teachers to determine which are most conducive for helping CTE teachers develop their writing self-efficacy. Examining the impact of these supports on both students and teachers, then, would further identify unique qualities of CTE instruction that may help create an ideal setting for helping students develop motivation to write. This may include assessing the performance of CTE students with instructors with different levels of reported writing self-efficacy.

Another direction for future research is in the general area of CTE, as few studies found described situating any causal research within the context of it. This disconnect fails to appreciate the many educational experiences students are exposed to regularly, and potentially misses opportunities that are well-positioned to support a wide-range of students. For too long CTE has been seen as its own silo. Future research could help continue to make the case for CTE and how it may be leveraged in a wide variety of ways to support students across content areas.

Finally, a more narrow focus on teacher and student writing self-efficacy in CTE would also be a direction for future research. As described in the limitations of this study, no causal implications can be inferred. Employing a research methodology that connects CTE student writing self-efficacy and outcomes to CTE teachers would provide empirical support for leveraging CTE in a number of ways to support students, teachers, and workforce demands. This may include a specific focus on students' exposure to

informational texts and technical writing, non-cognitive and behavioral competencies, students who have been historically underrepresented in CTE programs, and naturally, other critical "core" academic content that may be favorable to teach within the context of CTE.

## Conclusion

This study explored the beliefs of CTE teachers relative to their role in developing students' motivation to write. By utilizing an interpretative phenomenological analysis and constructivist approach, the experiences and beliefs of CTE teachers generated rich descriptions of "what" they experienced relative to their role in addition to "how" they experienced it. Insights into the shared experiences of these CTE teachers contributes to a better understanding of the meaning participants ascribed to developing students' motivation to write as a CTE teacher.

An iterative approach to data analysis was taken and resulted in an appreciation for participants *driving purpose,* their view of the *uniqueness of CTE,* the expressed agreement about the *importance of writing,* and several *conditions favorable for the occurrence of CTE writing*. CTE teachers and courses have the unique capability to expose students to challenging, literacy-rich, relevant instructional environments. The affordances expressed by participants in relation to situating writing instruction within the contexts of CTE aligns with related scholarly literature on helping develop students writing motivation. This research makes an important contribution to the limited empirical research on CTE, and the ever-growing body on writing and teacher self-efficacy. In particular, this research highlights the unique position of CTE teachers in helping develop their students' motivation to write.

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# APPENDIX A

## IRB Approval

University of Nebraska Lincoln

July 17, 2020

Katie Graham
Department of Educational Psychology
TEAC 114 UNL NE 685880345

Wayne Babchuk
Department of Educational Psychology
TEAC 225 UNL NE 685880355

IRB Number: 20200720448EX
Project ID: 20448
Project Title: CAREER AND TECHNICAL EDUCATION TEACHERS BELIEFS ABOUT DEVELOPING STUDENTS MOTIVATION TO WRITE

Dear Katie:

This letter is to officially notify you of the certification of exemption of your project for the Protection of Human Subjects. Your proposal is in compliance with this institution's Federal Wide Assurance 00002258 and the DHHS Regulations for the Protection of Human Subjects at 45 CFR 46 2018 Requirements and has been classified as exempt. Exempt categories are listed within HRPP Policy #4.001: Exempt Research available at: http://research.unl.edu/researchcompliance/policies-procedures/.

o Date of Final Exemption: 7/17/2020
o Certification of Exemption Valid-Until: 7/17/2025
o Review conducted using exempt category 2(ii) at 45 CFR 46.104
o Funding (Grant congruency, OSP Project/Form ID and Funding Sponsor Award Number, if applicable): N/A

We wish to remind you that the principal investigator is responsible for reporting to this Board any of the following events within 48 hours of the event:
* Any serious event (including on-site and off-site adverse events, injuries, side effects, deaths, or other problems) which in the opinion of the local investigator was unanticipated, involved risk to subjects or others, and was possibly related to the research procedures;
* Any serious accidental or unintentional change to the IRB-approved protocol that involves risk or has the potential to recur;
* Any protocol violation or protocol deviation
* An incarceration of a research participant in a protocol that was not approved to include prisoners
* Any knowledge of adverse audits or enforcement actions required by Sponsors
* Any publication in the literature, safety monitoring report, interim result or other finding that indicates an unexpected change to the risk/benefit ratio of the research;
* Any breach in confidentiality or compromise in data privacy related to the subject or others; or
* Any complaint of a subject that indicates an unanticipated risk or that cannot be resolved by the research staff.

This project should be conducted in full accordance with all applicable sections of the IRB Guidelines and you should notify the IRB immediately of any proposed changes that may affect the exempt status of your research project. You should report any unanticipated problems involving risks to the participants or others to the Board.

If you have any questions, please contact the IRB office at 402-472-6965.

Sincerely,

Rachel Wenzl, CIP
for the IRB

Full Accreditation

# APPENDIX B

## Interview Schedule

1. Please tell me a little bit about yourself.
    - Did you grow up here in Nebraska?
    - How did you end up teaching in CTE?
    - Did you participate in CTE courses when you were in school?
    - How about participate in a CTSO?
    - How long have you been teaching?

2. Tell me a little bit about the courses you teach.
    - How would you describe the students you teach?
    - How do you decide what content to include and the instructional strategies you use?
    - Is any of this unique to CTE?

3. How do you describe CTE and the courses you teach to people who aren't familiar with them?
    - How about the overarching purpose(s) of CTE?

4. What types of writing activities do you perceive as valuable in relation to the courses you teach?
    - Do you ever include writing activities in your courses?
        - What are some examples of these writing activities you could share with me?
    - What influences your decision to include writing activities in your courses?
    - Is this unique to CTE?

5. How confident do you feel about your ability to develop students' writing skills within the context of your course(s)?
    - Why do you feel this way?

6. How would you describe your confidence in your own writing ability?

7. How do you view your role in developing student's motivation to write?

8. What are some of the greatest challenges you face in helping develop students' motivation to write?
    - How do you typically overcome these challenges?

9. How can you be better supported to help students develop their motivation to write?

10. What else would you like to share with me regarding what we have talked about today?

# APPENDIX C

## Research Question and Interview Question Crosswalk

| **Central Research Question** | **Interview Question (IQ)** |
|---|---|
| How do CTE teachers view their role in developing students' motivation to write? | (IQ4) What types of writing activities do you perceive as valuable in relation to the courses you teach?<br>- Do you ever include writing activities in your courses?<br>- What influences your decision?<br>- Is this unique to CTE?<br><br>(IQ6) How do you view you role in developing students' motivation to write? |
| **Sub-Questions** | **Interview Question (IQ)** |
| (SQ1) How do CTE teachers feel their role is unique or differs from those of non-CTE teachers? | (IQ3) How do you describe CTE and the courses you teach to people who aren't familiar with them?<br>- How about the overarching purpose(s) of CTE?<br><br>(IQ1) Can you tell me a little bit about yourself?<br>- Did you grow up here in Nebraska?<br>- How did you end up teaching in CTE?<br>- Did you participate in CTE courses when you were in school?<br>- How about a CTSO?<br>- How long have you been teaching?<br><br>(IQ2) Tell me a little bit about the courses you teach and the district you teach in.<br>- How would you describe the students you teach?<br>- How do you decide what content to include and the instructional strategies you use?<br>- Is any of this unique to CTE? |

| | |
|---|---|
| (SQ2 and SQ3) How confident do participants feel about their own ability to write and develop students' motivation to write? | (IQ5) How confident do you feel about your ability to develop students' writing skills within the context of your course(s)?<br>– What do you think impacts this?<br><br>**(**IQ7) How would you describe your confidence in your own writing ability? |
| (SQ4) What are the greatest challenges these CTE teachers face in developing students' motivation to write? | (IQ8) What are some of the greatest challenges you face in helping develop students' motivation to write?<br>– How do you typically meet these challenges?<br>– How can you be better supported? |
| (SQ5) How do they feel they can be further supported to meet these challenges so that they can better accomplish their goals in the classroom? | (IQ9) How can you be better supported to help students develop their motivation to write? |

# APPENDIX D

## Relevant Artifact Examples

Excerpt from David's High School Course Registration Guide:

**Plan and achieve**. Make sure your high school course plan prepares you for entering the next phase of training or education in your desired career. To enter an electrician apprenticeship, for example, you may need a year of high school algebra. Your school counselor/advisor can help you plan your schedule to ensure that you take the required classes.

Employers and post-secondary schools often look to your high school record to gauge how you might perform on the job or in an educational program. And finishing high school shows that you can set goals and follow through. Starting freshman year, do the absolute best you can in your classes. Start strong and stay strong. Elka Torpey, "Career planning for high schoolers," *Career Outlook,* U.S. Bureau of Labor Statistics, January 2015.

**Employability Skills**

| ATTRIBUTE/SKILL | % OF EMPLOYER RESPONDENTS |
|---|---|
| Leadership | 80.1% |
| Ability to work on a team | 78.9% |
| Communication skills (written) | 70.2% |
| Problem-solving skills | 70.2% |
| Communication skills (verbal) | 68.9% |
| Strong work ethic | 68.9% |
| Initiative | 65.8% |
| Analytical/quantitative skills | 62.7% |
| Flexibility/adaptability | 60.9% |
| Technical skills | 59.6% |
| Interpersonal skills (relates well to others) | 58.4% |
| Computer skills | 55.3% |
| Detail-oriented | 52.8% |
| Organizational ability | 48.4% |
| Friendly/outgoing personality | 35.4% |
| Strategic planning skills | 26.7% |
| Creativity | 23.6% |
| Tactfulness | 20.5% |
| Entrepreneurial skills/risk-taker | 18.6% |

Course Description Example from Natalie:

## ENTREPRENEURSHIP - HSBS145

Grade Level: 10,11,12 ; Course Credit: 5 ; **Dual Credit Eligible** ; *Prerequisite: Intro to Business or Marketing*

Designed as an upper level capstone course, this course instructs students in the rewards and risks of owning or operating a business enterprise. Emphasis is placed on the mastery of skills needed to plan, organize, manage, and finance a small business. Skills in communication, technical writing, math, research, and problem-solving are reinforced as each student prepares his/her own business plan. The major objective is for students to use management and decision making skills to solve problems in a business and personal setting.

Excerpt from Michael's FFA Proficiency Award Project:

**Performance Review A:**

1. **Briefly explain your SAE and how it's related to this award area.**
   This is the first impression the judges have of your program and application. Make your write-up interesting and informative. Briefly describe how you got started in this proficiency award area.

   Some areas to cover include:
   (1) What interested and motivated you to begin?
   (2) What situations existed that relate to your SAE(s) for this area?
   (3) Did any particular person, situation or event create your interest?

2. **Briefly explain how your roles and responsibilities related to this proficiency award area have changed.**
   In every position you increase your knowledge of your job duties. How have your responsibilities changed related to this proficiency award area?

   How have you increased your knowledge and skill related to this area?

   How have your roles and responsibilities increased over the life of your SAE?

3. **Briefly explain what is the single greatest challenge you faced in this proficiency award area and how did you overcome that challenge.**

   Briefly explain the single greatest challenge you faced in this award area and how did you overcome the challenge.

   Note: Be specific and provide insight into your management and performance skills.

**Performance Review B:**

4. **Briefly explain your three greatest accomplishments/findings in this proficiency award area?**
   Have you participated in trainings or experiences that have impacted the success of the company or your growth as an employee? As an entrepreneur have you increased or expanded your enterprise? Has your research produced findings that support or reject your hypothesis? Did a research experiment lead to a new patent or method? State the three greatest accomplishments here.

   Accomplishment/Finding #1

   Accomplishment/Finding #2

   Accomplishment/Finding #3

**Performance Review C:**

5. **What are three ways your experiences or opportunities in this proficiency award area will impact your future?**
   What are three ways your experiences or opportunities in this proficiency award area will impact your future? Provide three impacts.

   Impact #1

   Impact #2

   Impact #3

   - i.e., **(Placement)** You had an opportunity to job shadow your employer, to advance in your future career.
   - i.e., **(Entrepreneurship)** I had an opportunity to visit with a banker to receive information on financial gains.
   - i.e., **(Research)** I had an opportunity to present my research to college researchers that prompted a position as an undergrad researcher.

## APPENDIX E

### Recruitment Email

Hello! My name is Katie Graham and I am emailing you regarding research I am completing for my doctoral dissertation at the University of Nebraska-Lincoln. You may recognize my name from my day-time role as State Career and Technical Education (CTE) Director with the Nebraska Department of Education (NDE). While I spend a good deal of my time as an administrator and team leader, I am not writing you today related to that position. Rather, I am writing you today in relation to my role as a student who is conducting her doctoral dissertation study. In no way, other than my deep desire to learn more about and improve CTE, are the two roles connected.

My career has always been in education and more recently within the context of CTE. I've researched best practices in reading and writing instruction for the better part of the past 14 years with a focus on teacher professional development. I maintain a keen interest and commitment to the voices of teachers when exploring constructs, such as motivation, that impact curriculum-development decisions. ***More specifically, my goal is to better understand how you view your role in developing students' motivation to write.*** I'm confident your experiences as a CTE teacher would be a great addition to my research and hope you will consider giving me about 30 minutes of your time.

I will be conducting interviews virtually at the time most convenient for you, preferably during the month of July. I expect the interview to last between 30-45 minutes and will be structured around a question and answer format between me and you. The interviews will be recorded but only for the purposes of transcription and evaluation. However, your identity will not be shared with anyone besides me as I will use pseudonyms as I write up my dissertation findings. Additionally, I will destroy any identifiable information at the conclusion of the study. Other measures to protect your identity and privacy will also be taken.

If you are interested in participating in this study, I would like to schedule the interview at the time of your convenience. Please let me know and I will begin that process. Thank you for considering this request!

Katie Graham
University of Nebraska-Lincoln

# APPENDIX F

## Adult Participant Informed Consent



University of Nebraska Lincoln

College of Education and Human Sciences

**Default Question Block**

**Study Title**

Career and Technical Education teachers' beliefs about developing students' motivation to write.

**Authorized Study Personnel**

- Principal Investigator: Katie Graham (402-471-3104)
- Secondary Investigator: Wayne Babchuk, Ph.D. (402-472-2661)

**Invitation**

You are invited to take part in this research study. The information in this form is meant to help you decide whether or not to participate. If you have any questions, please ask.

**Why are you being asked to be in this research study.**

You are being asked to be in this study because you are a CTE teacher.

**What is the reason for doing this research study?**

This study will explore CTE teachers beliefs and how those beliefs may impact classroom curriculum decision-making. Specifically, this study will explore the construct of writing motivation.

**What will be done during this research study?**

You will be asked a series of questions during one to two interviews to be scheduled at your convenience. Each interview will take about 30-45 minutes to complete. Because the interviews will be virtual (via Zoom, Skype, etc.) you may participate at your home or anywhere comfortable to you. Follow-up questions may arise and you may be asked for follow-up information.

**How will my data be used?**

Your responses to the interview questions will be kept confidential. While the study will collect some private information (such as your name), these identifiers will be removed prior to reporting of results. Information collected as part of research will not be distributed or used for future research studies.

**What are the possible risks of being in this research study?**

There are no known risks to you from being in this research study.

**What are the possible benefits to you and other people?**

Although there are no benefits or compensation for you, it is expected that the resulting knowledge gained from this study will contribute to existing scholarly literature regarding CTE, writing, and motivation. However, you may not get any benefit from being in this research study.

**What are the alternatives to being in this research study?**

Instead of being in this research study, you can choose not to participate.

**What will being in this research study cost you?**

There is no cost to you to be in this research study.

**Will you be compensated for being in this study?**

We will not pay you to take part in this study or pay for any out-of-pocket expenses related to your participation, such as travel costs.

**What should you do if you have a problem during this research study?**

Your welfare is the major concern of every member of this research team. If you have a problem as a result of being in this study, you should immediately contact one of the people listed at the beginning of this consent form.

**How will information about you be protected?**

Reasonable steps will be taken to protect your privacy and the confidentiality of your study data. The research records will be securely stored electronically through a University approved method and will only be seen by the research team and/or those authorized to view, access, or use the records during and after the study. Those who will have access to your research records are the study personnel, the Institutional Review Board (IR), and any other person, agency, or sponsor as required by law or institutional responsibility. Information about this study may be published in scientific journals or presented at scientific meetings and may be reported individually, or as group summarized data, by your identify will be kept strictly confidential.

**What are your rights as a research participant?**

You may ask questions concerning this research and have those questions answered before agreeing to participate in or during the study.

For study related questions, please contact the investigators listed at the beginning of this form.

For questions concerning your rights or complaints about the research, contact the Institutional Review Board (IRB):

- Phone (402) 472-6965
- Email: irb@unl.edu

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

You can decide not to be in this research study, or you can stop being in this research study ("withdraw") at any time before, during, or after the research begins for any reason. Deciding not to be int his research study or deciding to withdraw will not affect your

relationship with the investigator or with the University of Nebraska-Lincoln. You will not lose any benefits to which you are entitled.

**Documentation of Informed Consent**

You are voluntarily making a decision whether or not to be in this research study. Signing this form means that you (1) you have read and understood this consent form, (2) you have had the consent form explained to you, (3) you have had your questions answered, and (4) you have decided to be in this study. You will be given a copy of this consent form to keep.

By clicking on the *I Agree* button below, your consent to participate is implied. A copy of this form will be emailed to the address provided.

I Agree

I Do Not Agree

**Printed Name and Email Address**

Name (First, Last)

Email Address

**Participant Feedback Survey**

The University of Nebraska-Lincoln wants to know about your research expereince. This 14 question, multiple-choice survey is anonymous. This survey shoudl be completed after your particpation in this research. Please complete this optional online survey at: http://bit.ly/UNLresearchfeedback.

Powered by Qualtrics