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Factors Influencing Teachers' Perceptions of Success in Career and Technical Education Programs

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Abstract

With the varying interests and focuses shared throughout all of career and technical education (CTE) and the intricacies and traditions each CTE area offers, taking a holistic view and looking at what success looks like in CTE as a whole is a warranted discussion. The purpose of this qualitative descriptive study was to explore how CTE teachers define success within CTE programs. To fulfill our research goals, we utilized a content analysis of 28 CTE teachers' own definitions of what a successful CTE program consists of, along with an analysis of ideas shared during their engagement in focus group sessions. Inductive data analysis revealed teachers' ability to satisfy labor and workforce needs, foster skill development, and facilitate experiential learning being common indicators of a successful CTE program. These definitions are shaped based on the training and lived experiences of alternatively-certified and traditionally-certified teachers who participated in the study. Further, teachers acknowledged expectations placed upon them by both administrators and community stakeholders influence their perceptions of success in their CTE programs. Teachers felt these expectations were complex in that they could be both helpful to growing the program through helping secure additional visibility and partnerships for those stakeholders interested in helping the program grow, but also burdensome or challenging due to lack of understanding or necessary funding to meet their expectations. Future research should be conducted in this area through asking community stakeholders and administrators how they define success in CTE programs and seeing how these perspectives differ from teachers.

Keywords: CTE program design, CTE program components, administration, stakeholder engagement

Introduction

Career and technical education (CTE) encompasses training and development for over 12 million secondary students across several career areas (Advance CTE, 2023). Rigorous CTE training prepares students to be well-equipped with important skills as they prepare to enter the high-wage, high-demand career areas including manufacturing, business, agriculture, and many more. Despite 85% of the public maintaining a positive view of CTE (Advance CTE, 2023), teachers oftentimes have different perspectives on what makes a successful CTE program. The urge to

compare one classroom or program to the next is prominent in teaching (Paulick et al., 2017), but it is unfair as each classroom and program is unique and individualized.

From a societal level, there is clear evidence of CTE being extremely beneficial and rewarding in the lives of students, and many current and former high school students have been influenced by CTE. In 2005 alone, 97% of high school graduates were enrolled in at least one CTE course at some point in their educational career, and this pattern remained consistent for the previous 15 years (Aliaga et al., 2012). In 2019, 85% of high school graduates reported enrollment in at least one CTE course during high school with 39% identified as CTE concentrators, having earned two or more credits in the same CTE area during high school (National Center for Education Statistics, 2024). During the 2022-23 academic year, over 11.3 million secondary students completed at least one CTE course, with nearly 3.5 million identified as secondary CTE concentrators, having taken more than two CTE courses (Perkins Collaborative Resource Network, 2023).

To assist in funding and advancing CTE on a local level, legislation such as the Carl D. Perkins Career and Technical Education Act has been developed to improve the economic and social welfare of both students and adults and provide additional resources to secondary schools to provide equipment to grow and expand CTE-focused opportunities offered to students (Gordon & Schultz, 2020). These funds and resources can be utilized by CTE teachers to develop quality and effective programming for students that meets the needs of their community and local workforce stakeholders. Further, administrators can play a significant role in influencing the direction of CTE programs and allocation of funding within schools, despite a perceived lack of training for CTE administrators (Eaglin, 2023). Administrator's perceptions of what constitutes a successful CTE program may be influenced by their interactions with the community, such as participation in local industry or community events or attendance at an advisory board meeting (Hauseman et al., 2017). With the pressures applied by administrators and the complex boss-employee relationship (Price, 2011), many educators seek to appease the desires of their administrators, working diligently to ensure their programming is viewed as successful and worthwhile.

Teachers have varying definitions on what characteristics and qualities contribute to a successful and robust CTE program. CTE programs are driven by program plans which can be evaluated by local, state, or federal entities, and guide the development of the program to match what these entities *perceive* as success (Fisher, 2010; Manley & Zinser, 2012). These definitions may be influenced by parameters established by state leaders and evaluation criteria through program approval processes (Fisher, 2010) through quality standards or benchmarks (ACTE, 2026). Curriculum, staff, and partnerships were found to be the top three most commonly evaluated indicators evaluated with CTE programs on a state level (Xin et al., 2017). However, many CTE teachers view their position as a platform for preparing their students for career opportunities within their specific content area. While there has been limited work examining what success or effectiveness looks like within CTE, there has been some work which has examined the traits and characteristics of certain groups of CTE instruction areas. For example, Ramstad and Smalley (2025) conducted a three-round Delphi study with 40 experts within agricultural education. Their study examined the characteristics of effective agricultural education, and found 95 characteristics are needed in order to have a successful and effective school-based agricultural

education program across nine themes, including: (a) classroom instruction, (b) leadership development through the associated career and technical student organization (CTSO; i.e., FFA), (c) experiential learning and work-based learning, (d) teacher characteristics, (e) program resources, (f) stakeholder and community engagement, (g) program organization and evaluation, (h) program marketing, and (i) general program characteristics. Through reaching statistical consensus among the 95 characteristics among these nine themes, agricultural education programs now have a sense of direction of what success or effectiveness might look like within this particular discipline.

Since CTE encompasses a variety of career areas which demand specialized, industry-aligned skills, there is a need to understand broadly what skills are desired to be developed through CTE as a whole. The National Office of Career, Technical, and Adult Education (OCTAE) has developed a framework to guide CTE programs in identifying ways they can facilitate learning and experiences within their program to maximize technical and broad skill development. Providing students with opportunities to develop and refine these broad skills may be attributed to teachers' perception of what a successful CTE program looks like. OCTAE identified three key tenets of employability within their CTE framework, including: (a) applied knowledge through building students' academic and critical thinking skills, (b) effective relationships through developing interpersonal skills and personal qualities, and (c) workplace skills through resource management, information use, communication skills, systems thinking, and technology use (United States Department of Education, 2025). These skills can be infused into CTE programs to provide students with experiences which can prepare them for future careers and lifelong learning opportunities. The development of these skills will work to address the void of over 6 million skilled workers which will be needed in areas CTE serves, including agriculture, business and marketing, health care, manufacturing, and construction (ACTE, 2025). Further, since CTE provides a platform for students to further develop and apply skills such as math and language arts, it allows learners to deepen their understanding of the supporting content areas which can also contribute to success in the workplace and in life (United States Department of Education, 2025). CTE program priorities are driven by skill development linked with industry standards and broad employability competencies.

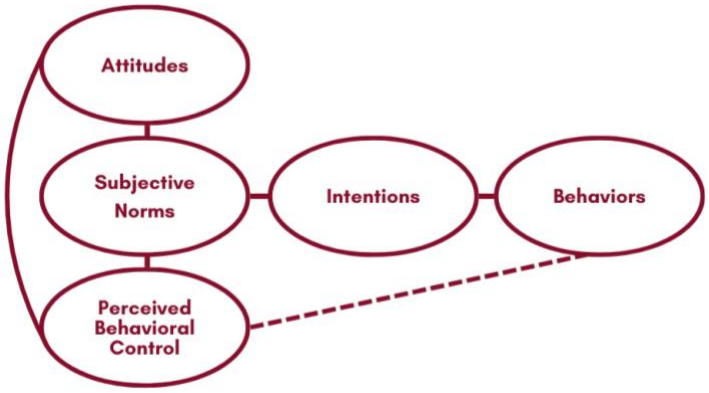
Despite the current literature supporting the relevance of CTE, and the areas of emphasis external stakeholders place on programs through grants and legislation, there is little existing research examining how CTE teachers define success within CTE programs. Understanding how teachers define success is an important first step to determining ways we can better support CTE teachers so they are able to achieve success within their programs and hopefully choose to remain within the classroom. The purpose of this qualitative descriptive study was to explore how CTE teachers define success within CTE programs as a whole.

Theoretical Framework

Ajzen's (1991) theory of planned behavior guided the development of this study; the theory posits that one's attitudes, subjective norms, and perceived behavioral control influence their intentions and ability to behave a certain way. Attitudes consist of an individual's beliefs and perspectives toward a specific topic or task, subjective norms focus on the expectations an individual perceives others place upon them related to the topic or task, while perceived

behavioral control refers to an individual's own level of confidence related to the topic or task (Ajzen, 1991). The theory of planned behavior has been a longstanding framework which has been used to understand and explore teachers' CTE programming, including Wilson's (2025) study, which explored the role of administrators and teachers in CTE programming, and Guerin et al.'s (2019) study, which used Ajzen's (1991) theory to discover factors which influence CTE teachers' ability to implement curriculum. However, in order to fill the gap of literature existing regarding teachers' perspectives of what effectiveness and success looks like within CTE programming, in this study, we explored the attitudes, subjective norms, and perceived behavioral control (PBC) of CTE teachers to explore their perspectives on what makes a successful CTE program, and ultimately, help them develop stronger intentions and behaviors to build and maintain a successful CTE program. Figure 1 provides an overview of the theory of planned behavior, and the relationship between these three areas (attitudes, subjective norms, and perceived behavioral control) and one's intention and behaviors.

Figure 1
Theory of Planned Behavior (Ajzen, 1991)



There is great value offered in understanding CTE teachers' attitudes, subjective norms, and PBC related to what a successful program looks like, and engaging in conversations about challenges with CTE programming. Using the theory of planned behavior (Ajzen, 1991), this study allows us to develop targeted messaging for teachers, administrators, and stakeholders about how to develop and support strong CTE programs in general. Further, through engaging in discussion, we can take the first steps toward identifying key barriers to reaching successful or effective programs, which can inform recommendations for professional practice to help CTE teachers and administrators in developing and supporting programs which match teachers' individual and collective definitions of success.

Purpose and Research Questions

With the varying interests and focuses shared throughout all of CTE and the intricacies and traditions each CTE area offers, taking a holistic and comprehensive view regarding the definition of success within CTE as a collective entity is a warranted and relevant discussion. Further, given the lack of evidence of defining "success" within CTE contexts, there was a great need for this study to contribute to the literature within CTE programming. The purpose of this

qualitative descriptive study was to explore how CTE teachers define success within the collective entity of CTE. This purpose was driven by two research questions:

1. How do teachers define success within career and technical education programs?
2. How do teachers describe the expectations placed upon them by external stakeholders?

Methodology

Qualitative research seeks to examine the *why* and *how* behind topics of interest (Merriam & Tisdell, 2016). A qualitative approach was selected for this study to better understand the perceptions of CTE teachers and the experiences which influence these perceptions.

Epistemology, Reflexivity and Positionality

We utilized a pragmatic epistemology to frame this study. Pragmatists seek to ask questions which lend themselves to practical solutions with real-world implications (Kaushik & Walsh, 2019; Merriam & Tisdell, 2016; Morgan, 2014). Further, pragmatists employ the methods which are most practical to answering those questions. We utilized a focus group methodology at an end-of-year CTE teacher conference so participants would be able to share their lived experiences and further build community and collaborate with one another since this study aimed to examine the perspectives and experiences of all CTE teachers. We both recognize our past experiences as CTE teachers present a level of bias within the study and are mindful of our interest in teacher recruitment and retention. We were cognizant of these biases in our data collection and analysis and employed measures of trustworthiness to ensure the values of our participants were being represented most clearly (Merriam & Tisdell, 2016).

Participants

Participants consisted of CTE teachers representing between 1 and 31 years of teaching throughout Minnesota. Teachers represented CTE areas including agriculture, trade and industry, medical careers, family and consumer sciences, business and marketing, law enforcement, and work-based learning. All CTE teachers participating in the statewide CTE induction program as a mentor or mentee, having completed at least two years of participation in the program, were invited to participate, and 28 educators chose to participate in the study. Participants were not offered monetary incentive to participate in the study (Lavrakas, 2008).

Research Design

An IRB-approved qualitative descriptive (Kim et al., 2017; Merriam & Tisdell, 2016) design was utilized within this study. Qualitative descriptive studies seek to explore and describe the experiences of participants collectively (Kim et al., 2017; Merriam & Tisdell, 2016). First, participants submitted individual, hand-written definitions of a successful CTE program. Then, all participants engaged in one of four focus group sessions recorded via Zoom. During the focus groups, participants collaboratively discussed a series of questions connected to the theoretical framework (Ajzen, 1991). The questions which guided the focus group conversations were assessed for face and content validity using an expert panel of individuals with experience in

CTE and qualitative research (Bryant, 2025; Thyer, 2010). We recognize the importance of theory and framing the organization of our work; we utilized the theoretical framework in order to ensure alignment and advancement of the framework within our study, allowing us to apply Ajzen's (1991) theory to our work. Table 1 includes a sample of the questions asked, and each question's connection to the theoretical framework.

Table 1

Sample questions included in focus group protocol and connection to framework (Ajzen, 1991)

Question	Theory Connection
What makes a successful CTE program?	Attitudes
How have your experiences shaped your definition?	Attitudes
How do administrators or community expectations influence your thinking?	Subjective Norms
How has this conversation impacted your understanding of success in your own program?	PBC

Data Management

Each participant was assigned a pseudonym; all pseudonyms were tracked in a key (Merriam & Tisdell, 2016). Participants wrote their name along with their personal definition of a successful CTE program using provided notecards. These findings were entered into a secure document and the assigned pseudonyms were placed next to each definition (Merriam & Tisdell, 2016). The focus group sessions were recorded and transcribed verbatim on Zoom (Bernard et al., 2017; Krueger & Casey, 2015; Merriam & Tisdell, 2016) and all identifiers were replaced with the assigned pseudonyms. The notecards and audio recordings were destroyed after transcription.

Data Analysis

Both phases of the study were evaluated from an inductive approach (Thomas, 2006). In using an inductive approach, codes, categories, and themes emerged organically from the responses shared by participants. The inductive approach followed three levels of analysis as recommended by Merriam and Tisdell (2016): (a) reviewing statements and transcripts, (b) isolating the codes into focused categories, and (c) facilitating the emergence of themes. Further, a content analysis was conducted to evaluate the definitions of success shared by participants (Creswell & Guetterman, 2019; Mayring, 2015). A keywords approach (Onwuegbuzie & Leech, 2007) was used, which relies on examining specific words or phrases commonly emerged within a data set to identify trends and patterns.

Trustworthiness

Establishing trustworthiness in the study is key to maintaining the rigor of qualitative traditions (Tracy, 2010). Trustworthiness was achieved through member checking, peer debriefing, an audit trail, and triangulation. Member checking (Lincoln & Guba, 1985; Merriam & Tisdell, 2016) occurred through asking participants follow-up questions and checking for understanding during the focus group sessions, along with going back to participants during data analysis to confirm that the themes and quotes were an accurate representation of their ideas. Peer

debriefing (Spall, 1998) occurred throughout the study to ensure consistent analysis and interpretation. In addition, an audit trail (Merriam & Tisdell, 2016) was established to clearly connect codes and themes throughout data analysis. We also utilized multiple data points from participants, including their written definitions and their responses and engagement in the focus group questions to achieve triangulation (Glesne & Peshkin, 1992; Lincoln & Guba, 1985; Onwuegbuzie & Leech, 2007).

Findings

As described by the theoretical framework (Ajzen, 1991), an individual's behavior will be influenced by attitudes, the expectations teachers perceive are being placed upon them, and their own level of confidence. Within the context of our work, the behavior of a CTE teacher to implement a program which is successful is influenced by the key domains of Ajzen's (1991) framework. Our findings integrate participants' definitions of a successful CTE program along with comments shared in the focus group sessions. Each content area has their own unique course opportunities and topics of instruction, different career and technical student organizations and leadership development opportunities, and varying approaches to facilitating work-based and experiential learning. The findings of this study evaluated CTE teachers' perceptions of CTE programming collectively and are not specifically connected to their CTE area. Findings are presented on the basis of the research questions, guided by the theoretical framework (Ajzen, 1991) and the themes and subthemes which emerged from the analysis.

RQ1: How do teachers define success within career and technical education programs?

Definitions of success were gathered through participant-submitted definitions on a notecard along with discussion in focus group sessions. These definitions are based on their perceived attitudes toward success within CTE (Ajzen, 1991). Participants' definitions were analyzed and coded for key themes. Table 1 presents a summary of the themes, categories, and codes which emerged inductively from the submitted definitions, along with a frequency of each code appearing within the definitions. The labor and workforce needs, skill development, and experiential learning codes each appeared 10 times throughout the 28 submitted definitions.

Table 1

Summary of Themes, Categories and Codes Emerged from Definitions

Theme	Category	Code	*n*
Career Preparation	Workforce Alignment	Labor or workforce needs	10
		Real-world opportunities	4
	Skill Acquisition	Skill development	10
		Relevant to content area	4
Instruction	Delivery	Rigor	3
		Experiential learning	10
	Environment	Positive and welcoming	4
Sustainability	Students	Enrollment	3
		Engaging experience	2
	External Stakeholders	Awareness	3
		Community and industry	5
		Administration	2
	Credibility	Recognition and credentialing	4

We recognize teachers' background, pathway to teaching, and participation as a mentor or participant in a statewide CTE induction program may influence their definitions of success within a CTE program (Rada, 2023; Tummons et al., 2024), just as these lived experiences influence teachers' perceived behavioral control and level of confidence, and perceived expectations they have placed upon them (i.e., subjective norms; Ajzen, 1991). Table 2 presents an overview of definitions submitted by teachers with alternative certification. For the purposes of this study, teachers who did not receive their certification through enrollment in a university including student teaching experience prior to teaching and in the content area in which they are teaching were considered alternatively certified (Tummons et al., 2024). Among these participants, there was greater focus on student support (Annie, Cindy, Drew) and authentic experiences (Andy, Brock, Holly, Lindsey), while also being able to adapt to changing circumstances. Careers and expectations are constantly shifting with the CTE landscape (ACTE, 2026). Josh reflected, "A successful CTE program is one with continued growth and adjusting to change." Being able to balance the complex needs between student needs, authentic experiences, and industry changes were important among these educators. All of the definitions of success among alternatively certified teachers participating within the study are presented in Table 2.

Table 2

Alternatively Certified Teachers' Definitions of a Successful CTE Program (n = 10)

Name	Content Area	Definition
Andy	Health	Getting the student ready for the workforce (of the class that is being taught, really meaning capable of having success).
Annie	Law	Diverse teachers teaching all kinds of students and ensuring students get the understanding of the course assignments and pathway in order to grow into the field of study if they want to make a successful CTE program.
Brock	Health	A successful CTE program educates students in an area of content as well as gives them a head start towards a career in that area.
Cindy	Business	An environment where students are heard, seen, and are successful in the content area.
Drew	T&I	Supported and informed ecosystem.
Holly	AFNR	Student and teacher engagement that promotes hands-on learning and real-world application.
Howard	Law	One that helps students identify a career of interest, understands the career (pros and cons), knows the steps to go from here, and develops basic knowledge and skills.
Josh	FCS	A successful CTE program is one with continued growth and adjusting to change.
Lindsey	FCS	A successful CTE program is one that provides authentic, hands-on experiences and opportunities through positive community and world relationships and connections.
Sallyann	FCS	A successful CTE program would include high student enrollment and students being challenged to engage in industry (professional) level problem-solving and solution-finding strategies.

Note. AFNR: Agriculture, Food, and Natural Resources, FCS: Family and Consumer Sciences, T&I: Trade and Industry

In addition to inductively analyzing the definitions of success submitted by CTE teachers with alternative certification, we also analyzed definitions submitted by teachers with traditional certification. Teachers who received their certification through enrollment in a university and engaged in a student teaching experience in the content area in which they are teaching were considered traditionally certified. Table 3 provides an overview of the definitions of success shared by the participants who were traditionally certified. These participants tended to have longer definitions, and more of the participants focused their definitions on external stakeholders, such as community perceptions, awards, or sponsorships (Cheryl, Francis, Mark, Violet), and administration (Darcy). For example, Darcy defined success as, "[A] successful CTE program would need to have an administration who understands the policies and procedures of all the parts to a CTE program who will then disseminate the information to teachers." On the other hand, some teachers viewed success on key numeric drivers, Bailey highlighted, "I would define a successful CTE program with increased enrollment." Comments shared by all participants are presented in Table 3.

Table 3

Traditionally Certified Teachers' Definitions of a Successful CTE Program (n = 18)

Name	Content Area	Definition
Bailey	FCS	I would define a successful CTE program with increased enrollment.
Cheryl	Business	A program that has a lot of hands-on activities that are relevant to students' lives and activities and projects and students are engaged in those projects and some of those projects are sponsored by local businesses.
Darcy	Health	Successful CTE program would need to have an administration who understands the policies and procedures of all the parts to a CTE program who will then disseminate the information to teachers.
Ellie	FCS	A successful CTE program consists of engaged learners learning, applying, and practicing their skills in various ways that not only promotes personal learning growth but also industry standards.
Francis	T&I	Relevant curriculum with high quality project-based learning that are guided with industry input.
James	Business	Teachers are able to enhance their programs to meet industry needs.
Jasmyn	FCS	An engaging, rigorous program that allows students to learn new skills in preparation for the workplace.
Josephine	FCS	I feel a successful CTE program is one that gives students experience and exploration into and with real world curriculum.
Kim	FCS	Builds confidence to try new things and include connections with the community.
Landon	Business	Students experience CTE-related careers through projects, guests, and real-world immersion.
Mark	T&I	Students are award-winning, community recognized, employable, and successful.
Paisley	FCS	Collaboration and learning through multiple CTE departments where students use hands-on, work-based learning experiences to gain skills and knowledge for success in 21st century careers, military, and industry.
Rylee	Business	An experiential learning program that provides career exploration through multiple platforms (PBL, SBE, student organizations, work experience, job shadow, field trips, speakers).
Sawyer	T&I	Contains career exploration, specific employable skills and guides students toward a career pathway that will give them the opportunity to be a contributing member in their community.
Tamara	FCS	When my students are excited to take my class and when former students share a "do you remember when we did…"
Tina	AFNR	A successful CTE program includes classes with hands-on, real world experiences to help prepare students for future careers.
Tristan	Business	Engages students in the knowledge and skills to successfully transition into a job or career.
Violet	WBL	Consists of career exploration, experiential learning that prepares students for careers, partnerships with community and the opportunities to earn industry credentials.

Note. AFNR: Agriculture, Food, and Natural Resources, FCS: Family and Consumer Sciences, T&I: Trade and Industry, WBL: Work-Based Learning

RQ2: How do teachers describe the expectations placed upon them by external stakeholders?

Throughout the focus groups, participants shared a great deal about expectations placed upon them; these expectations were met with feelings of support, but at times, animosity. The expectations teachers have placed upon them connect to the subjective norms domain within Ajzen's (1991) theory of planned behavior. Teachers recognized that the engagement of stakeholders in their programs and their ability to articulate their expectations of their program can drive their own perceptions of success, for better or worse. Focus groups tended to focus on two key groups of external stakeholders: (a) community members and (b) school or program administrators. The frequent discussion of these groups naturally grounded the development of our two themes, and four supporting sub-themes.

Theme #1: Expectations of Community Members

Teachers commented that community members' expectations are directly related to the visibility of the productivity and perceived output of the CTE program; however, they also see expectations shaped through comparison to other CTE programs within the school and in neighboring districts. Teachers highlighted a slight sense of competition between them and neighboring school districts due to the marketing and public relations efforts of those other districts. Communities want to be proud of the impact of their CTE programs and begin to expect these outputs over time. For example, Holly commented on the community's expectation of having visible and tangible outputs that are directly connected to her agricultural education program, such as plant sales or construction projects, while feeling like she is in competition with other larger neighboring districts with CTE programs. "The other agriculture teacher teaches our ag woods and construction class. Those kids build these planters that the community is able to see inside and outside of the greenhouse. They did a whole bunch of yard furniture that they sold." Others commented how these types of projects are not only great for publicity and awareness, but they also help financially sustain the program when the community visits the facilities and purchases student work. Since community members have seen these tangible outputs, they begin to expect to see them, even if it is difficult to coordinate or manage.

Subtheme #1: Industry Expectations. Within the community, there is also a layer of expectations teachers felt from industry stakeholders as part of their subjective norms (Ajzen, 1991). Teachers believe that community and industry stakeholders want graduates to be ready to work in entry-level positions immediately after high school; one teacher commented, "I just really want to make sure my students feel successful no matter where life takes them, and to me, that means them finding a job of some sort." However, many have not developed the work ethic and responsibility that today's older, working class has because many of today's youth lack even simple employment experiences that the older, working class had in their childhood. "Our community expects that our students are going to be entry-level career and job-ready, but unfortunately, that's so difficult to attain," Sawyer shared. "They didn't chuck papers like we

did. They didn't mow lawns when they were in 5th and 6th grade." Sallyann added, "They've been sheltered."

Subtheme #2: A Team Effort—Donations and Partnerships Lead to Success. Despite the expectations felt from both industry and community members contributing to their subjective norms (Ajzen, 1991), teachers also recognized the impact of donations and partnerships on advancing their CTE programs, especially in smaller school districts which may face greater financial limitations. James shared, "As a small school, some businesses are going to donate a ton of steel and metal equipment, because there's a little more of a local connection there." Holly also commented on a recent welding facility renovation at her rural school:

> We started going to businesses to ask for funds to do it, and we went to an alumni and said, 'Hey, Jon, we are looking for money for phase one—getting a manifold system set up in our welding shop.' When we told him it was $65,000, he said he could get it done cheaper, and within a month he had the whole thing done, and he donated it all.

Beyond donations, teachers mentioned industry stakeholders are able to engage with CTE programs by serving on advisory boards, being guest speakers, and offering tours. In addition, some schools are able to host career fairs to help facilitate partnerships between schools and industries. While career fairs can be a great way to facilitate industry partnerships, in smaller districts, some industry stakeholders may not view these events as the best use of their time. Josephine shared that despite her small school inviting other local schools to pool resources and make the best use of the over 40 companies' time, they are unable to get many additional schools to come due to costs for substitute teachers and transportation. "The one thing I always hear from the businesses is that they wish we could see more kids. The schools all do their own little career fair… So how can businesses support engagements like this when these companies are running on empty every single day?"

How can CTE programs ensure that the needs of both industry and community members are being met? Josh suggested one key way for understanding the expectations of community members would be through conducting a needs assessment, both of the program, and of the industry. Francis, Landon, and Josh agreed this would serve as a way to bring in additional partnerships and help the CTE program achieve greater levels of success.

Theme #2: Expectations of Administrators

During each of the focus group sessions, the tone teachers used to describe expectations of their administrators differed drastically from the tone they had when discussing collaborations with community or industry stakeholders. Lindsey shared, "My admin is why I left." Teachers recognize administrators have a great deal of influence in supporting or hindering an education program, as communicated by the expectations they have, and the support they are able to offer programs to achieve those expectations. Josh echoed, "If you don't have the proper leadership, nobody's going to want to be there. Similar to your classroom, if you don't have proper leadership in your classroom, then nobody's going to want to be in it." Teachers felt that the expectations administrators placed on teachers were generally driven by data or numbers, and that at times, administrators' high expectations and desire to *feel* involved inhibited CTE

teachers' perceived ability to do their jobs, connecting to the subjective norms felt by CTE teachers (Ajzen, 1991).

Subtheme #1: Numbers as Drivers. Teachers felt that administrators expected strong engagement in their CTE programming, which is measured by the number of students enrolled in courses and participation in department-specific organizations. Rylee commented, "I think from an administrator's perspective, big numbers equals success because they can put more kids into your programming." This standard is seen both in the classroom and within their career and technical student organizations (CTSOs). She also mentioned that wins and successes that get additional positive public relations (PR) for the school seems to be important to administration, but it is perhaps not as important to CTE teachers. She mentioned:

> Whatever gets the positive public relations, seems to be big. We know that whether students win a trophy or not is really not important, often their learning happens when they don't win a trophy. One of the challenges from an administrator's perspective is that trophies are big PR opportunities, yet I don't know too many programs that define success based on wins in terms of medals and trophies in CTSOs.

Further, Sawyer commented that maintaining high participation metrics within CTSOs has also been difficult, but it is something that administrators expect CTE programs to deliver on. He shared, "The problem is, we have so many organizations, activities, and athletics. We're struggling to get numbers, even if they are planning on going into those career fields. It's expensive; they're all nonprofits. It's a Ponzi scheme, and that drives me bonkers."

Within the classroom, some teachers shared administrator expectations regarding high numbers of industry credentials as a sign of program success. Andy mentioned his program's goal is to have their students earn industry-recognized certifications within the healthcare field, but since this is a highly rigorous process, numbers are lower in the advanced courses he teaches. Despite this, Andy does not necessarily know if his administrators see the success due to low numbers, "From a numbers perspective, it could look like it was a failure, but it wasn't, because we introduced a new generation of kids to medicine. Maybe they didn't take this class for the certification, but it prompted them to go to nursing school or to physician assistant school."

Subtheme #2: "Let us do our jobs." Teachers perceive administrators' level of involvement within making programmatic or curricular decisions to be high, almost to the point of restrictive at times, and expressed some animosity toward this. Sallyann commented, "My admin is really focused on financial literacy right now. So whatever the community members and business partners are asking about financial literacy, that's what she encourages me to include in the classes that I'm teaching." Administrators may find value in their involvement in the community and the connections they have within each of the CTE areas, but they may not recognize that their CTE teachers offer these connections and expertise as well. Annie expressed frustration with her administrators appearing to want to take over and control nearly every aspect of her program but not trusting the connections and expertise she brings into her position. She shared:

> I'm in touch with the industry. But they kind of did this weird thing where they reach out to industry partners, and not on my behalf. It's a very kind of takeover feel, so that I can kind of fade out, and they can put anybody else in if they want, even though I built the program. I've been there since day one. I kind of understand if I decide to just up and leave and go to another spot, they just want to be able to keep the program going, but at the same time, like. I'm fully immersed, I'm fully on board, and I'm committed to this work. You should trust me.

Conclusions and Recommendations

The purpose of this qualitative descriptive study was to explore how CTE teachers define success within CTE programs. Conclusions and recommendations have been grounded in the findings, existing literature, and the framework. Further, rich qualitative methodological approaches contribute to the transferability of these findings into key CTE contexts (Lincoln & Guba, 1985) and allow us to present key recommendations for professional practice and future research efforts. Understanding how teachers define success, and the perceived expectations they perceive related to success, has several implications to identifying perceptions of success within program design. Broadly, this work and the findings presented have connections for how we approach the development of program benchmarks for program evaluation, preparing future educators, and can shape conversations within the policy and legislation realm, to influence funding for CTE programming.

RQ1: How do teachers define success within career and technical education programs?

Teachers define success in a variety of ways; these definitions and attitudes are largely shaped by their own upbringing and training experiences (Ajzen, 1991). Within CTE, success is influenced by the teachers' ability to engage in hands-on learning in classroom, work-based learning, and leadership contexts. Teachers shared their attitude and beliefs about success through mentions of student outcomes, skill development, credentialing, engagement, and overall community impact. Overall, teachers commonly perceived success as careful alignment of the program with local labor or workforce needs along with skill development to meet those needs, extending learning beyond the classroom (Ramstad & Smalley, 2025). These might be facilitated through classroom activities, engagement in work-based learning or experiential learning outside of the classroom, and engagement in CTSOs such as the National FFA Organization, Skills USA, and Business Professionals of America (Aragon et al., 2013; Ramstad & Smalley, 2025; Ulrich et al., 2017). Teachers found value in experiential learning opportunities to facilitate the engagement of students in real-world skill development. Teachers also recognized the importance of providing opportunities that are not only rigorous through credentialing and offering students with tangible takeaways, but also a space that engages and welcomes students, community members, and key stakeholders. Teachers shared perceptions of the subjective norms felt from perceived expectations from programmatic stakeholders, including administrators, parents, industry, and their community based on initial written descriptions of success. These internal and external stakeholders place expectations on the program and the teacher (Ajzen, 1991). Teachers also expressed PBCs that limit or enhance their beliefs and abilities to have a successful CTE program in written definitions. The attitudes, subjective norms, and PBCs are evident in the written definitions as teachers share their intentions and planned actions based on their personal

beliefs while also noting stakeholder input even before conversations prompted external stakeholder influences. These result in the behaviors of the teachers and are included in the opportunities developed for students and the overall development of the total CTE program. Overall, this results in an initial description of a successful CTE program aiming to engage students in hands-on learning through real-world applications while developing employability skills and providing students with a place to belong and grow.

RQ2: How do participants describe the expectations placed upon them by external stakeholders?

Teachers recognize that schools and programs desire to be the best they can be, and they acknowledge external stakeholders beginning with their written descriptions. While there is a shared vision for CTE programs existing with the goal of preparing students for career and life after high school through building both technical and employability skills within their students (ACTE, 2025; United States Department of Education, 2025), teachers still feel a great deal of expectations placed on them by both community members and by their administrators (Eaglin, 2023; Price, 2011). These subjective norms placed upon them can help advance the program, but can also add stress at times as teachers attempt to balance external expectations and perceived pressure to meet demands and conform to norms (Ajzen, 1991). Further, teachers feel these external entities are consistently comparing their CTE programs against other CTE programs within their building and in neighboring school districts, especially since CTE programs are generally highly-visible within the community (Paulick et al., 2017). When expectations exist, it is important for industry partners, community members, and school administrators to join forces and work together to build up their teachers and their programs (Eaglin, 2023; Hauseman et al., 2017; Price, 2011). A teacher may feel pressure based on what they believe others expect of them to have a successful program based on subjective norms (Ajzen, 1991). These parties should be involved in the program but not attempt to take control of or dominate the programs (Eaglin, 2023). Community members should recognize the complexities that lie within the school that may not be visible to them, such as budgets or curricular requirements, and administrators should trust the expertise and connections their CTE teachers bring into their spaces.

Recommendations

This study serves as a foundational baseline for future work within research and in professional practice. Recommendations are grounded within the framework and existing literature and supported by the findings presented within this study. As such, these recommendations have implications for teacher preparation, policy, and program evaluation.

Research recommendations are rooted in addressing the limitations of this work and identifying potential research questions which can guide future directions of understanding success within CTE programming contexts. A limitation of this study is that while we had representation from each of the CTE pathways, the representation was not equal, and only teachers from Minnesota were invited to participate. Future research should seek to address these limitations through aiming to achieve a stratified random sample of educators participating to be more representative of the population of CTE teachers and could seek to investigate insights of teachers from outside of Minnesota. Lastly, future research should utilize a quantitative approach where educators

evaluate the extent to which they achieve their collective definitions of success within a program following a Borich (1980) model. For example, participants could evaluate the perceived importance and the perceived ability to engage administrators within their program. Additionally, future research should seek to examine how administrators and community stakeholders define success within CTE; these stakeholders' definitions were not explored as part of this study. After exploring these individuals' definitions, we can then compare the definitions shared from stakeholders with the findings of this study to reveal similarities or differences. Understanding these similarities or differences may help us better understand the subjective norms or expectations perceived by CTE teachers' definitions of success (Ajzen, 1991). Combined, these future research efforts can help us learn more about what success looks like within CTE programs across the nation and better understand how teachers' perspectives may compare or contrast with the perspectives of stakeholders.

For professional practice, we recommend state CTE leaders work with CTE teachers and industry stakeholders to develop a CTE success spotlight document or arsenal to showcase the successful efforts and success stories of individual CTE programs across the state. While we recognize each school will define success in CTE programs differently, some teachers who are just starting their careers may not know where to begin or are looking to spark ideas to help them build their program to meet the expectations placed upon them by (i.e., subjective norms) (Ajzen, 1991). These success stories could include innovative projects or school-based enterprises, stories of building or sustaining industry partnerships, ideas for grant funding, strategies that have been effective for engaging students in CTSO activities, and strategies for hosting CTE-focused career fairs to name a few. A spotlight document could be developed for each of the CTE areas within that state to give teachers and administrators ideas of success at all levels. Examples considering the years of experience of the teacher may also help set realistic expectations for early-career and more experienced teachers. Seeing programs' unique examples of success stories and successful innovations within specific CTE areas may inspire teachers to think of ways they could build their programs. Providing the contact information and school names for each of these success stories can also result in readers having the ability to connect with these programs for additional ideas or mentorship, building their perceived behavior control relating to developing a successful CTE program (Ajzen, 1991). Considering Ajzen's (1991) theory of planned behavior as a framework, a shared understanding of a successful CTE program that satisfies teacher and stakeholder expectations will result in aligned attitudes, intentions, and behaviors. Moreover, if a teacher believes the strength of the program benefits students, knows what others expect of them to be considered successful, and feels supported and capable of making it happen, they are more likely to take action and confidently grow a successful CTE program (Ajzen, 1991).

We recommend utilizing these findings to serve as an opportunity to advance discussions shaping what success looks like in a variety of CTE contexts, including policy, program evaluation, and teacher preparation. Findings should influence how benchmarks and quality indicators (ACTE, 2026) are presented and discussed with key CTE audiences within these contexts. One of the largest areas of policy connected to CTE is the Carl D. Perkins Career and Technical Education Act (Gordon & Schultz, 2020). Within the area of policy, programs which achieve baseline "success" as described within this study, and as described in any future connected work, we recommend providing additional funding sources or resources to support the

sustained and continued growth of these programs. In turn, these findings having direct implications on policy will also have implications on program evaluation; program leaders might have a stronger more compelled desire to achieve success, as defined by policy or legislation, in order to meet the expectations placed on them by evaluative parties, including administrators or state CTE leaders (Fisher, 2010; Manley & Zinser, 2012). Finally, these findings have the potential to influence approaches to teacher preparation or teacher induction (Rada, 2023; Tummons et al., 2024); if the definition of "success" is recognized, and teacher educators or induction program leaders strive to prepare or train teachers who are able to lead successful CTE programs, teacher educators or teacher induction program leaders should revise curriculum and incorporate experiences to build their teachers' confidence in leading a successful program (i.e., perceived behavioral control; Ajzen, 1991). Further, the incorporation of these experiences will be conducive to future teachers meeting the expectations (i.e., subjective norms; Ajzen, 1991) placed on them by key program stakeholders, including administrators, community members, and related industries.

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