Abstract

**Background:** Interviews were conducted with Career and Technical Education Student Organizations (CTSOs) advisors from secondary schools during the COVID-19 pandemic.

**Purpose:** The purpose was to discover the impact COVID-19 pandemic had on CTSO advisors’ personal views and lived experiences. **Method:** Researchers followed a constant comparative methodology, analyzing the interview transcripts for interconnectivity of the experiences by independently coding data employing open and axial coding techniques and identifying emerging themes. **Discussion:** The short-term effects of the pandemic were related to access and adequate technology, apathy in both students and advisors, and administrative support. More research will need to be conducted on the long-term effects. **Conclusion:** When the COVID-19 pandemic began, secondary schools were closed, and activities for CTSOs were either cancelled or completed virtually, challenging the success and professional preparation of the CTSOs advisors. Conclusions are made about their professional development and long-term effects on workforce development.

**Keywords:** advisor responsibilities, COVID-19 effects, career and technical student organizations

Introduction

Employers desire workers with strong career-readiness skills and general work habits such as dependability and teamwork that make a person an effective employee. Many educational programs focus on the development of better interpersonal and non-cognitive abilities such as empathy, problem-solving, adaptability, and communication. The demand for such skills is projected to grow in the future. Additionally, changes in the workplace have impacted high school reform in terms of higher standards and expectations for academic achievement, technical competence, and the transfer of knowledge to the world of work. Expectations for higher workplace achievement has integrated academic curriculum and career and technical education content as a result of the Carl D. Perkins Vocational and Applied Technology Education Act. Secondary schools are encouraged to emphasize the interrelatedness of workplace contexts with the intent to connect all subjects in a manner that creates a more
holistic student who can address manner the problems and issues of the environments in which they will work.

Founded through the Smith-Hughes Act of 1917, career and technical education (CTE) has evolved from what has traditionally been called vocational education. It provides students with the academic, technical, and employability skills and knowledge to pursue post-secondary education or enter a career field prepared for ongoing learning. CTE has changed the concept of vocational education that consisted of low-level courses and simple job training and has replaced it with academically rigorous programs that align with and lead to employability skills and opportunities for post-secondary education. These programs provide students with the skills and competencies needed in the workplace like critical thinking, teamwork, communication, and problem solving. Scott (2014) stated that career technical education is an important component of the American education system, serving the purpose of providing learning experiences that help students explore career areas, prepare for employment, retrain for job skills, or enhance existing job skills to stay competitive in today’s economy, and that “the U.S. workforce benefits by having a source of competent workers who can work in team environments to solve problems, introduce innovation, and produce products of high quality in the most efficient and cost-effective manner possible” (p. 355). CTE no longer focuses on preparing students for entry-level jobs; it prepares them for careers in high demand fields.

CTE curriculum addresses both the goals of post-secondary education and career-readiness by providing learning options for students who might be considered at risk for leaving high school. It combines classroom teaching with work-based learning, allowing students to work with employers and community leaders to that have established work experience. Exposure to the workplace allows students to learn employability skills, see how academic content is
applied in real-world settings. The CTE pathways ensure that coursework is aligned with other academic standards to meet the expectations of post-secondary institutions and designed to address the skills needed in career fields. CTE instructional methods use applied, contextual learning that provides opportunities to students that connect what they are learning to career paths and workplace goals. Thus, CTE is a viable option for more students by providing innovative options that address different learning styles. Historically, vocational education was designed to help students enter the workforce shortly after high school; however, CTE’s evolution from vocational education has created programs that encourage participation in post-secondary education, reduce dropout rates, and provide incentives like dual enrollment credit and industry certifications.

All students in CTE programs have the opportunity to participate in Career and Technical education student organizations (CTSOs) that extend teaching and learning through innovative programs, business and community partnerships, and leadership experiences at school, state, and national levels. They provide motivation toward the development of workplace skills through a variety of activities such as conferences, awards programs, and competitive events.

CTSOs provide a learning environment that emphasizes academic and technical skills and integrates a variety of skills and competencies that are in demand in the high-performance workplace (Gordon & Schultz, 2020). CTSOs provide unique activities that foster career-related skills and leadership development and prepare emerging leaders and entrepreneurs for careers in various fields.

Legislation such as the George-Barden Act of 1946, the Act to Incorporate the Future Farmers of America in 1950, and the Perkins Act of 1998, provided guidance for using funding for activities related to student organizations and established a relationship between the academic
programs, the student organization, and the U.S. Department of Education (Scott, 2014). Additional legislation extended funding to support partnerships with representatives from labor unions, business and industry, and post-secondary institutions to recognize the work CTSOs were doing to prepare skilled employees for the workplace through professional development activities, career guidance, and work programs like job shadowing, internships, and apprenticeships. This legislation provides over $1 billion in state grants annually to serve more than 14 million students nationwide (CTSO.org). CTSOs are comprised of 11 organizations recognized nationally, aligned with 16 career clusters and 79 career pathways.

According to other research done at the high school level, CTSO can help with student success in completion and graduation of various CTE programs, gain employment with job networking skills, and develop leaders for the community in which they reside. It would seem that those end results could be transferrable to the students in community college CTE programs as well. The CTSO experiences are so rich with learning and relevant content for the preparation of students not only to obtain knowledge and skills but authentic real-world experiences that are difficult to produce otherwise. Once the faculty has embedded the specific CTSO activities that work for their program, they become a natural extension or add more to their current curriculum for the day-to-day activities. Once they have been properly incorporated into the curriculum, they cannot be separated without leaving a hole in the curriculum or program (Derrickson, 2007).

Teachers infuse the organization’s activities into the curriculum, thereby becoming advisors to the CTSOs. The successful operation of a CTSO is contingent upon an effective and informed advisor. An advisor is responsible for recruitment, organizational management, preparation for competitions, chaperoning, participation in specific functions of conferences, and fiscal management of the CTSO. However, there are several barriers to ensuring the success of
CTSO. The advisor is a teacher with a full teaching load, requiring daily lessons plans, grading, lecturers, and demonstrations. Teachers face the negative attitudes of students toward participation in CTE and CTSOs. This influence often comes from parents, other teachers, and school administrators who believe involvement in CTE-related programs is for lower academically prepared and non-college bound students.

While funding is generated by the enrollment of students in the CTE programs, advisors often find themselves with less money each year. They have to be creative with their budgets and engage in grant writing and fundraising activities to fully fund the student participation in state and national events or purchase equipment for the classrooms. Funding is often an issue when their state level Department of Education does not prioritize CTE programming. Although past evidence has shown that partnerships with business and industry have aided students through participation in CTSOs, some advisors find it difficult to establish meaningful and beneficial relationships.

One of the primary goals is to develop leadership in the students, so each chapter should be student-led. Unfortunately, CTE teachers are expected to serve a more diverse student population which can include those that are educationally, socially, and economically challenged. These challenges can prevent or dampen the development of student leaders, so the advisor carries more of the weight in designing and planning activities and events for the CTSO.

Because CTE teachers must meet more stringent certification requirements than core academic teachers, there is a shortage of qualified teachers. In most states, CTE teachers must document not only a baccalaureate degree in their teaching content area but also years of work experience to obtain their state license to teach at the secondary level. For those who choose to pursue a CTE teaching degree, they often struggle to find post-secondary credentialing programs,
resulting in fewer graduates who have received training in the skills needed to teach CTE courses. The shortages of qualified teachers has forced states to create alternative certification programs that provide a pathway to licensure for college graduates that did not complete a teacher-preparation program. These circumstances have left a group of individuals who have completed coursework in academic areas but not in classroom management and curriculum development. They feel less prepared and lack the ability and creativity needed to integrate the CTSO into the curriculum/classroom (DeWitt, 2010). Others may enter the CTE teaching profession with no prior knowledge of CTSOs, or they receive no training after being hired on how to be an effective CTSO advisor.

**Methodology**

Using a qualitative approach the researchers gathered data through personal interviews, which allowed for a collection and analysis of data based on the CTSO advisors’ personal views and lived experiences to better understand the impact COVID-19 pandemic has had on their role as a CTSO advisor and their students (Creswell, 2014). The researchers designed this study around barriers, themes, and constructs identified in a review of related literature that were experienced during a *normal* academic year.

The interview protocol also consisted of a list of questions that collected demographic information such as gender, years of teaching, compensation, etc. These questions helped to collect valuable data that enriched the overall analysis of the interviews. Each interview lasted approximately 60 minutes allowing the researchers time to reaffirm responses.

Average tenure as a CTSO advisor was 13 years with one having served 29 years and one having been in the role only 1 year. CTSO represented in the study included Business Professionals of America (BPA), Distributive Education Clubs of America (DECA), Family,
Career and Community Leaders of America (FCCLA), Future Farmers of America (FFA), SkillsUSA, and Technology Student Association (TSA). Participants included 8 men and 6 women. Their student membership ranged from 20 students to 125 students. The advisors spent an average of 7 hours a week on advising duties, but 4 stated their roles of teacher and advisor were too intertwined to separate the hours and responsibilities. All but one of the advisors used an Advisory Board of industry professionals for guidance and consultation.

**Findings**

The qualitative analysis followed a constant comparative methodology, analyzing the interconnectivity of the experiences by independently coding data employing open and axial coding techniques (Glaser & Strauss, 1976; Saldaña, 2012). After the coding and sorting of data was completed, the researchers identified emerging themes and selected exemplary vignettes from data. The collection of data stopped when themes were repeated and no more fresh data were obtained from new participants (Charmaz, 2006). Saturation was reached with 14 CTSO advisors. As a result of this process, three themes emerged: impacts of technology; apathy; and administrative support.

**Impacts of Technology**

When in-person instruction and after-school activities were restricted due to the COVID-19 pandemic, CTSO advisors and their students were thrust into a new technological environment. Advisors still had the responsibility to interact with their students, which included identifying new communication methods through technology software. Once identified, they had to become proficient using the new software and then training their students how to use it. One teacher voiced frustration with “trying to maintain contact with the student leaders, who struggled to plan and organize events on their own because they had no knowledge of the new
software”. The majority of the advisors reported doing work from home just as their students were doing, reporting that they experienced inconsistencies with internet connections, preventing them from participating on a regular basis. The economic disparities among their students hindered their access to the internet, and the social differences were also apparent when students were asked to join events with cameras and participate in live sessions online. Several of the advisors were also taking courses themselves for professional development and found their courses moved online or disrupted.

CTSO activities such as competitions and conferences at the state and national level that were not cancelled were conducted virtually. Again, this required mastery of new technology to allow advisors and students to make presentations and compete against CTSOs from other schools. An advisor reported “the activities we have been allowed to do had to be virtual, using new forms of technology. It has been so challenging.” The advisors stated that the technology selected was often not appropriate for presenting or judging large projects that included complicated, detailed information.

Some advisors reported they were not allowed back into their classroom, so they had inadequate equipment at home to help students prepare for the competitions. This included simple items such as a laptop to more complex items such as welder. Inconsistent internet access created barriers for both the advisors and the students and limited participation in both local activities and those at the state and national levels. One advisor said this “denied advisors and students the collaborative, networking, competitive aspects of the CTSO.”

Apathy
Several of the advisors expressed difficulty in keeping their CTSO students motivated, with one referring to “COVID apathy” when she described her students. Membership and participation declined, and recruitment of new members was difficult. Students were alienated at home and were experiencing mental and psychological effects from the isolation. Several advisors reported concern over retention for the next school year. One advisor said “students are not getting what they had in years past.” When conferences and competitions were cancelled, one advisor reported “morale is down”, and another advisor said “limiting participation has been the most heartbreaking aspect of COVID”. Advisors also had to cancel field trips to local businesses and their annual service projects. Frustration was stated as “trips and conferences are a big draw – it has been difficult to keep the students engaged” and “the competitions were a chance to engage students in learning within and outside of the classroom walls.” By the time a virtual tour of a local organization that often provided internships was organized, “the students were no longer interested.” One advisor was able to return to the classroom and hold a meeting later in the semester, reporting “the kids were just happy to be in the same room as other people for a change! They just wanted to feel a part of something!”

**Administrative Support**

The cancellation of CTSO conferences and competitions also brought about difficulties within the organization. Most of the advisors saw a decrease in financial support since a significant amount of their funds are generated from state dues, conference registrations, donations, and fundraising activities. Without the expected budgets available, the advisors were not able to “purchase equipment like a camera for student presentations or provide adequate software to all student participants”. One third of the advisors normally receive compensation for their role as a CTSO advisor, but several school administrations cut the compensation when
events were cancelled. The advisors felt their work as an advisor was “overlooked by the administration because it did not include travel and awards from competitions.”

Advisors were not allowed back in their classrooms or laboratories, so “equipment available at the school went unused.” Over half of the advisors reported working with a co-advisor on a regular basis. Some were older advisors that had served as mentors and provided training during their early years. They used each other for support, idea generation, and sharing tasks. One advisor felt the “physical separation forced upon them hindered their ability to support one another.” Some advisors reported hopeful feelings when conferences and competitions were not cancelled, but then “became frustrated when school administrators restricted their attendance in the virtual events with little or no explanation.” One specifically felt the lack of administrative support “all but killed my program.” Finally, an advisor reported poor support from administrators when she requested assistance with researching and writing a grant for potential funding”.

Discussion and Conclusions

The lives of the CTSO advisors and their students were truly interrupted as a result of the COVID-19 pandemic. They shared some very similar experiences and have discovered strategies for coping. However, others are still living the experience and are still struggling. The reports of isolation and apathy for the advisors is not surprising as national news is reporting psychology effects of the virus across the country. Brown (2002) noted that linkages with other teachers were an important professional development strategy for sharing practice and knowledge, and access to adequate technology facilitated those linkages. This was most apparent with those who worked normally with a co-advisor.
Derrickson (2007) mentioned how vital the connection with business and industry is to CTSOs. The advisors rely on professionals to provide networking opportunities, gain job interest, and volunteers for guest speakers, tours, and judges for student competitions. Future employment options may be impaired by the lack of contact during the pandemic.

CTSOs provide motivation and retention, reaching all students in their natural learning environments. Students can normally experience and see the relevance of the course content, become more involved, and complete their programs in a timely manner; however, long-term effects of inactivity may include shortages of job opportunities, removing the purpose and focus that is created through participation in a CTSO (Derrickson, 2007), resulting in the apathy the advisors reported.

The pandemic also removed the professional development and career growth opportunities for the advisors when they could not assist with the organization of conferences and competitions. They often rely on those experiences to network with other advisors and share best practices. This is especially true for new and inexperienced advisors. Access to and interaction with state and national CTSO officers can help establish relationships with business and industry partners for donations and potential employment placements for their students. The conferences and competitions can also provide the advisor with a better understanding of occupationally-derived standards for the workplace.

CTSO advisors also rely on partnerships with employers to deliver content and provide learning opportunities for their classrooms. The pandemic limited access to facilities and discussions, decreasing the amount of information employers could provide on skills and competencies needed for career progression in the industry and prevented the availability of real
world examples of industry problems that were often provided as challenges for students to resolve in work-based learning activities.

While CTE teachers are more likely to have more professional work experience than academic teachers, they are more likely to have less than a baccalaureate degree than other academic teachers, who are more likely to have a masters degree. They haven’t been through a traditional teacher-preparation program and have little knowledge of CTSOs. Many of those who were continuing their formal education during the pandemic experienced difficulties and delays. Gordon and Schultz (2020) suggested that professional preparation programs must integrate CTSOs into their education content and training to ensure new faculty have awareness and support to serve as a CTSO advisor.

Employers can demonstrate a commitment to CTSO advisors by reviewing curriculum to ensure it is relevant, current, and reflect changing technologies and knowledge. They often have access to technology that is not available to schools and could use it to provide information about careers and the skill sets needed to hold certain jobs remotely. They can provide virtual tours of their facilities, serve as industry judges for student competitions, and donate equipment such as laptops and laboratory devices. Advisors could also be provided externships during breaks from school to learn about new careers, processes, and technologies. Partnerships with community colleges and four-year universities can provide additional learning opportunities for advisors and students.

There is still substantial work to be done to ensure that advisors are successful in their efforts to manage CTSOs. Although CTSOs were not mentioned in the Smith-Hughes Act of 1917, funds were provided for teacher training for those who had advising duties and supervised student organizations. At the state and national level, CTSO leaders could make the workload of
an advisor a simpler task by redesigning training materials and manuals. This could include samples of blank and completed forms, calendar of events and deadlines published well in advance of school year, updated website with virtual and printable materials and training for advisors and student leaders, and professional development opportunities to learn success strategies for maintaining their CTSO.

Administrators and policymakers must communicate and collaborate to align and integrate core content and CTE standards. Schools must pool resources to present an integrated CTSOs into the curriculum to increase student knowledge and ensure readiness for success in both college and careers. It is essential that advisors receive appropriate professional development to support their efforts. Pre-service and professional development should be supported and even provided by administrators. Administrators can help advisors who have no experience researching funding agencies, writing grants, or overseeing a funded grant. Finally, the value of CTE programs and as a sub-set, CTSOs, must be supported and marketed to the general public as a crucial component of our economic, educational, and workforce development success. Attitudes that CTE programs are only for individuals who are not college-bound must be changed and eliminated with evidence that those students who participate in CTSOs partnered with CTE programs meet employer needs for highly skilled workers (ACTE, 2006).

Recommendations for Future Research

With many CTE teachers coming from non-teacher preparatory/not coming from traditional teacher education degree programs, we can no longer rely on advisors hearing about CTSOs in teacher education programs in college. Research could be done to determine the best strategies to prepare industry experts for the classroom. Limited advisor training is reported at the local level. Future research could explore the development of training programs and how to
implement them equally across school districts. This could also include designing advisor manuals and evaluating the effectiveness of those materials among new advisors. The most challenging aspect is how to implement all of this in the current environment with financial issues and teacher shortages. More teachers/advisors are doing more with less resources, leaving less time for additional programming and responsibilities.

References

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