FY10 Post-Secondary Research

Career and Technical Education

ATTITUDES AND PERCEPTIONS OF HIGH SCHOOL ADMINISTRATORS IN URBAN AND SUBURBAN COMMUNITIES ABOUT CAREER AND TECHNICAL EDUCATION AND ITS OPPORTUNITIES

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Abstract

The purpose of this study is to explore the issues of Career and Technical Education (CTE) by investigating the attitudes and perceptions of urban/suburban area high school administrators. Data collection was done via two means, an online survey and personal interviews. In total, 10 administrators participated in the online survey, and eight volunteered for personal interviews. When survey results were conjoined with interview responses, the reality of CTE programs did not match the administrators' positive perceptions. When regarding the rigor level of CTE courses to core courses, the comparison of survey results to interview results finds that even though CTE courses may be viewed as preparing students for postsecondary education, the reality is the rigor of these courses does not compete with core academic/college preparatory classes. In addition, when administrators were asked about the type of careers available for CTE students, not one administrator suggested a career that specifically required a postsecondary degree. Research suggests even though administrators say CTE courses prepare and encourage students for postsecondary education, the career options they [administrators] considered available for CTE students demonstrates they do not envision the students in CTE courses to pursue postsecondary education.

Introduction & Conceptual Framework

With the reduction of school funding, and the ever pressing matters of local districts eliminating programs, career and technical education (CTE) programs continue to pose a greater risk for elimination compared to core curriculum programs. The proposed termination of federal funding in 2008 would have created a $1,161,000,000 deficit in national programs and state grants targeted to support CTE programs (USDE, 2008).

There are many reasons for the decrease in the number of CTE programs. Among those reasons: (a) Programs may not be seen as meeting the needs of students, employers and the community; (b) CTE competes against core curriculum programs; especially with those specifically seen as college preparatory programs; (c) CTE has suffered from an image of being not as academically challenging; (d) programs were often targeted primarily to educationally disadvantaged students; and (e) increasing costs for program maintenance and/or start-up.

Achievement gaps exist among U.S. students based on race and ethnicity, and the gaps are even more dramatic when gender is added (ACTE, 2009). However, given the leadership role of CTE in high schools nationwide, this program has successfully integrated high-level academics and technology through its curriculum and hands on experiences. To encourage minorities to enter STEM career fields and better prepare these students to overcome current achievement gaps, CTE programs are expanding into urban areas and focusing on low-income and minority students (ACTE, 2009).

Furthermore, a study conducted by Flournoy and Knobloch (2008) found that while high school teachers in urban areas are in support of such programs, it is not uncommon for teachers to struggle with lack of support or understanding from high school principals or counselors . The reasons behind the lack of support are speculated to be lack of understanding about these programs; however, research is necessary to determine the exact causes and rationales.

The conceptual framework of this study is based on the premise that Career and Technical Education administrators who are more confident and efficacious in their knowledge of CTE and its opportunities will be more motivated in recommending the program to students. The conceptual framework was adapted from a theoretical framework derived by Tshcannen-Moran, which examines how educators identify factors that influence efficacy (Tschannen-Moran et al., 1998).

Statement of the Issue & Purpose

The purpose of this study is to explore the issues of Career and Technical Education (CTE) by investigating the attitudes and perceptions of urban/suburban area high school administrators. Specifically, the study (1) assesses: secondary administrator's perceptions of program effectiveness within their high school in the urban/suburban area; and (2) identifies main areas of program concern from an administrator's viewpoint.

Connection to the Literature

Career and technical education (CTE) programs serve several primary functions ranging from integrated academics instruction to tech prep to job preparation for employment-bound and educationally disadvantaged youth (Rojewski, 2002). CTE prepares students at a young age with the skills and knowledge in a technical area that can be utilized in the workplace immediately. In addition, many CTE instructional models provide a format to allow for contextualized learning approaches, preparing students to be more qualified for the work place when leaving high school (Berns and Erickson, 2001; Fletcher, 2006).

Students that are able to obtain Work-Based Learning (WBL) through their CTE have advantages that many students do not have prior to entering the workforce. Work-Based Learning (WBL) was created on the premise that students will be able to learn from real-world context. This makes the academic learning experience more engaging and enhances the fundamentals taught in the classroom (Wonacott, 2002). Scribner and Wakelyn (1998) reports that high school students in Wisconsin see their WBL experiences as providing technical knowledge and skills needed to be competitive in the high-tech, fast-changing work place as well as more generalized skills like problem solving, critical thinking and teamwork. CTE allows students to develop skills by integrating entrepreneurship education with academic and technical curriculum that stresses financial, people management, interpersonal, communication, and business planning skills (Billet, 2001).

CTE in Urban Areas

Career and Technical Education can have a lasting impact on students in urban communities. According to Imel (2000), "Urban students, who may not see the adults in their lives rewarded for hard work, are not usually motivated by extrinsic means such as grades and discipline, and uninteresting tasks may seem pointless to them" (p. 4). CTE programs in high schools have the potential to change this perception in the eyes of students.

Many believe that CTE programs are an integral weapon in the fight to save our urban schools (Predmore, 2004). CTE is valuable to urban students because it gives them a sense of entitlement. Many students that are on the verge of dropping out of school can be assisted by CTE. This is because all students need to learn about ways of the workplace, career ladders, and labor markets (Castellano, Stringfield, & Stone, 2002). Students that are engaged in learning often increase their knowledge of a subject when they are involved in hands on experiences, such as WBL (Resnick, 1988). According to Imel (2000), urban communities can be the site of service learning and community projects that can be used as WBL.

CTE programs in urban settings can offer other benefits as well. The large size of an urban school can allow high schools to create specialized CTE schools that focus on the occupational needs of students

while still incorporating academic concepts (Grubb, 1995). CTE specialized schools, such as career clusters, career academies and tech prep programs, can all offer small learning communities that benefit student learning (Brand as cited in Imel, 2000). These small groups that could be created through CTE can allow teachers to connect more to students and offer individualized learning, meeting the needs of each student (, Grubb, 1995; Imel, 2000). However, due to the continued overcrowding of urban schools, administrators may require CTE courses to have larger class sizes, resulting in CTE programs losing their effectiveness and learning benefits for the students.

University Requirements: Challenging for CTE Programs

Society has created a belief that the only way to have career success is to attend a four-year university. Therefore, the expectation that students enter postsecondary education upon graduation continues to grow (Krueger as cited in Fletcher, 2006). Due to society's expectation, guidance counselors and parents are pressuring student academic performance (Lewis, 2001). This added pressure from a one-size-fits all mentality for career success has left little to no time for electives, such as CTE courses. With this large push for all students to attend a four-year university upon graduation, and with many CTE courses being electives, these programs are at a greater risk of being reduced or eliminated by high schools. However, CTE together with integrated curriculum can prepare students for both the work force as well as to enter post secondary education (Dare, 2000). In fact, studies have shown that school-to-career programs in the early 1990's increased the probability of immediate college attendance by 13% (Walcott, Owens-West & Makkonen, 2005).

CTE programs continue to fight a losing battle against core curriculum programs, especially those specifically seen as college preparatory programs. When administrators and teachers do not support career preparation programs, students attitudes towards the programs are impacted (Lewis, 2001). A study conducted by Flournoy and Knobloch (2008) found that it is not uncommon for teachers to struggle with lack of support or understanding from high school principals or counselors. The reasons behind the lack of support are considered to be lack of understanding about these programs; however, research is necessary to determine the exact causes and rationales.

Curriculum Integration in CTE

As expectations to attend postsecondary education grow, the standards for core academic areas such as math, science and literature continue to be pushed at an increased rate. The expectation of such a focused academic schedule has led students to focus on small pieces of knowledge, resulting in little to no connection of knowledge with the "big picture" (Merrill, 2001). The benefits offered through integrated curriculum can not only provide students with the "big picture", but can also improve students' interest and attitude towards school (Austin, Hirstien & Walen as cited in Loepp, 1999; barab & Landa, 1997). In CTE, students have the opportunity to see how academic areas build upon each other to create the whole picture (Fensham & Gardner as cited in Merrill, 2001; Martin-Kniep, Feige, & Soodak as cited in Merrill, 2001). Allowing students to see how their skills can be used to solve problems should increase student success and achievement (Bjork & Richardson-Klavhen as cited in Dyer, Reed & Berry, 2006; Stone, Alfreld & Pearson, 2008) and help students find meaning and relevance in their education (Loepp, 1999; Stone, Alfeld & Pearson, 2008).

CTE programs are natural settings for learning core curriculum that emphasizes skills and competencies that enhance opportunities for students to succeed in education as well as in the workplace (Brown, 2000; Forman & Steen, 1999; Grubb, 1997; Hull, 2000, Keif & Stewart, 1996). The separation of these two academic fields may therefore inhibit a successful transition for students from high school into the work field (Dare, 2000). Integrated curriculum into CTE programs helps prepare students since it

resembles how people learn and work in the real world (Kotar, Guenter, Metzger, &Overholt as cited in Merrill, 2001).

As we can see, integrated curriculum in CTE courses can offer students a multitude of benefits. However, a study by Jansen, Enochs &Thompson found that educators are not prepared to integrate curriculum appropriately (2006). In addition, programs may need to undergo some reform to meet the increased expectations within education (Lewis, Kosine, &Overman, 2008). To continue to promote integration and prepare educators to integrate curriculum confidently and appropriately it may be required that whole-school reform take place. A study by the National Research Center for Career and Technical Education, (2004), demonstrates that CTE enhanced whole school reform can be successful without sacrificing student growth in core subjects. In addition, Jansen, Enochs &Thompson, (2006), recommend that steps be taken to prepare educators for academic core focused lessons in CTE programs in order to achieve success.

National Education Standards – connecting courses (Ag Education)

In January 2001, President George W. Bush signed into law the No Child Left Behind Act (NCLB). This act raised academic standards from grades K-12 (Phelps, 2002). Due to the act, schools are now accountable for the continued success of their students. Schools must have 95% of their students take the proficiency test and meet state standards for attendance and improved graduation rates. These standards are known as "Adequate Yearly Progress" (AYP) (Mantel, 2005). It is estimated that one-third of U.S. Public Schools did not make the 2009 AYP. The state of Illinois had 42% of its schools not meet the AYP standards (Dietz, 2010).

Due to the increase of demand of success for students NCLB mandates that an assessment in reading, math, and science be given during secondary education. As a result, CTE courses are being eliminated to allow students more time to prepare to meet federal mandated standards (Phelps, 2002). There is also a decline in CTE enrollments in secondary education (Camp & Heath-Camp, 2007). According to the National Assessment of Vocational Education there has been a .2% decline in the amount of vocational credits earned and a 2.8% decline in the number of students that concentrate in occupational studies. This insight reinforces the assumption that CTE courses may be cut out of the curricula with students and administrators believing that CTE courses are a waste of time. Therefore, students may be taking less CTE courses to compensate for their perceived time lost (Fletcher, 2006). However, CTE courses offer students curriculum with application in science & math (Wilhem, 2003). In addition, efforts to align CTE curriculum to NCLB standards may result in teachers limiting their courses to what will be found on standardized tests (Fletcher, 2006).

Mode of Inquiry & Sources of Data

Participants were purposively selected based on their location (urban and suburban high schools) to participate in this study. The names of administrators were obtained from the Education for Employment (EFE) and served as the frame for the study. The data was collected over a five month period, via an online survey and/or a personal interview. The survey instrument consisted of twenty-four questions (See Appendix A). Face and content validity of the instrument were evaluated by an expert panel of human and community development educators. Changes suggested by the validation panel such as formatting of items and instructions for completing the instrument were made.

Data collection was conducted using an adaptation of Dillman's (2000) tailored design method to maximize response rate. For all groups of administrators, the data collection process began by contacting a primary administrator with a pre-notice message. The survey information was e-mailed to the

administrators several days later. One week after the first mailing, an e-mail reminder notice was sent to the non-respondents. A total of ten administrators responded to the online questionnaire, and eight volunteered for an interview session. Each interview conducted lasted between 20 to 30 minutes and the interview data was audio-recorded as well as transcribed by the researcher. To increase validity, two researchers open-coded the interview data for key ideas and themes (Glesne, 1999), and the descriptive survey data was analyzed using the survey hosting site software.

Results

Results are presented in two sections: individual interviews and an online survey.

Personal Interviews

In an effort to gain insight regarding the views about the current value of CTE programs, eight administrators from two suburban and one urban school were interviewed.

- Value and Strength of CTE

Of the administrators interviewed, CTE was most commonly valued for the program's ability to provide "real world skills" (practical knowledge for daily activities) and career exploration. A common trend was these experiences provided students with a connection between academic knowledge and real world skill,

"It gives them the venue to apply…and develop core academic skills." Administrators acknowledged career exploration helps prepare students to choose what field to enter upon graduation. As one administrator stated, "Which [career exploration] has made them make better choices leaving here to do post secondary."

Other points of program value included, job skills and hands-on experience of content material. Job skills were defined as skills specific to a career field. It articulated by one administrator that hands-on experience not only provided students with skills, but was essential for students struggling with core academic courses.

"Most of your struggling students don't do well in the reading and writing, they need the hands on; they need to apply themselves."

- Career Opportunities

The general consensus was CTE prepared students for work in a variety of areas. In regard to their specific community the career opportunities were summarized as primarily blue-collar, trade, and entry-level positions. Specifically mentioned were the fields of health care and automotive positions.

> "In terms of career opportunities, I think there are a lot of things for students to do besides being at fast food restaurants or high school type jobs….if we can point them in the [right] direction and find companies to accept them at lower entry-level positions, then move them through a company so that they end up with a career path. I think a lot of companies do not realize that there is a valuable workforce coming out of high school."

- Comparability of CTE to Core Courses

When asked to compare the rigor of core academic courses to CTE courses, most responded by saying the programs are comparable; however variance depended on the individual classes. The main consensus was upper level CTE courses are as rigorous, but lower level are not as rigorous when compared to core courses. One administrator identified class composition as one possible reason,

> "…when you look at the students that are sometimes placed in classes just to get credits… I think that may determine the type of rigor you are using in the class."

It was ascertained that the majority of the students filling the class roster in CTE courses were lower level achieving students. Several administrators commented that CTE appears to better fit the needs of students, who may favor a kinesthetic learning style,

> "…the majority I would say are your struggling students that need the hands on and practical part of it."

These students were habitually classified as students who would be seeking employment immediately upon graduation of high school. Another commonality among these students was many had parents/guardians in a trade or blue collar position.

- Program Challenges

Administrators identified three main challenges for the CTE program (1) CTE as an elective, (2) funding and (3) University requirements. Many administrators stated CTE as an elective was a disadvantage to the program.

> "I personally think being an elective is a disadvantage. I went to a high school where we were required to take so many CTE classes and I have to say those classes have been the most beneficial in my life still. Our students often only do what they are told to do and don't often think what their options are and depending on who is guiding them, you don't know who is guiding them to make their decisions for classes…if it [CTE courses] were required, they might see the value in it."

In addition, overcrowding throughout many urban schools has resulted in electives becoming even less of a priority for upper classmen.

> "…we are in an overcrowded situation for our school…we are about 200 to 300 students over capacity so, therefore, we are on a split, staggered schedule. Our seniors are only required to take a certain number of classes and then they can leave the building so we are fighting enrollment based on students being able to leave early. It takes a 7 period day for students and cuts it into 5, therefore we are feeling the wrath of the fact that students can leave early they are not going to take elective courses, or as many."

The second challenge is funding. One administrator reported,

> "CTE is the program that loses funding first."
>
> "CTE programs are expensive to run to have a quality program running."

Administrators also deduced the prodigious reason for lack of funding was the push for more core academic courses.

A third challenge identified as impacting CTE enrollment, specifically college-bound students, is the competiveness of the University entrance requirements. The fact CTE courses are not weighted is a two-fold problem; detraction of higher achieving students and University acceptance. CTE courses are less attractive to higher achieving student, due to its non-weighted status, which may negatively affect a student's GPA rank.

With such competitive, cut-throat entrance requirements of certain Universities, many higher achieving students have been directed away from CTE courses by college representatives. One counselor provided an example of such a dilemma,

> "I just had a student come in the other day that signed up for a health careers programs…she had been communicating with University of Wisconsin-Madison and she asked the question, "Should I take health careers (3 blocked period class)…would this be good knowing that my field is going to be in the health care field, would this be better for me than taking physics or another core curriculum course?" Wisconsin-Madison replied saying that we would recommend the core curriculum courses over the health careers program.

Additionally,

> "I think more students are under the impression that they will have less of a chance to get into those competitive universities if they do not choose very solid college preparatory courses."

Across the board, administrators felt a University's perception is that CTE does not prepare for college level class work.

One counselor stated,

> "…It is an awkward position to be in as a counselor, I respect my colleagues who are in the CTE program. I see the absolute value for the students. But then the other side of it is what you are hearing from kids, universities, and parents. It is hard to balance…"

- Directions of CTE

A declining enrollment trend was identified as the general perception of the current CTE program status. Administrators, while they saw the purpose and value of a CTE program, construed many students and parents to be losing interest in the program.

> "Popularity as in sheer numbers…has been stagnant and actually declining a little bit. I attribute a lot of that too just the number of academic credits they need for graduation has

> certainly hurts us. The PSAE push to get students the scores at certain levels on that and when students are not doing well on that they add another course down at the academic wing which that pulls away from us slightly. So I think it is actually on the decline a little bit."

For the future direction of the program, the general consensus was administrators would like to see CTE become a required course and qualify as AP (advanced placement) status.

> "I would like to see AP (advanced placement) CTE classes. That is the big push. That is what students want to be in, to say that you are in an AP class they only see the AP classes as the important classes. I wish that we could offer something at that level…similar to our dual credit but on a sense of keeping equal on AP.
>
> (What is it about AP that students are attracted too?)
>
> The higher GPA rank, because it is all about the GPA rank."

It was further acknowledged that becoming a required course would overcome several of the challenges currently facing CTE programs. Additionally, administrators look forward to the idea of integrating CTE courses with the core curriculum. As one administrator commented,

"I would develop team teaching opportunities with some of our core areas and our CTE teachers."

Survey Results

A total of 10 administrators completed the survey, with ninety percent of the respondents identifying their race/ethnic group as Caucasian/White, with one person abstaining from making a selection. Six out of the ten administrators were female and four male. When asked to define their current employment position, eighty percent of the administrator's occupied one of the following positions, Principal, Assistant principal, Chairperson and Counselor. On average these administrators had 5.5 years in their current administrative positions. Administrators tended to be well educated with one Bachelor of Science, seven Masters of Science, and three PhD's degrees among the group. More than half of the administrators were located in suburban communities. 6 are located in suburban communities, 2 in rural communities, 1 in a town and 1 in city.

To gain a better understanding of each participant's experience with CTE prior to their occupying their present position, each participant was asked about their previous experiences in CTE as students in high school, in CTE organizations, and through teaching. Seventy percent of the administrators reported having taken between 1-4 years of CTE coursework in high school. For those who participated in CTE organizations, Business, Marketing and Computer Education as well as Family and Consumer Science were the two types of organizations of which they participated. Only 30% (3 out of 10) of the participants had previous experiences teaching CTE courses. Furthermore, of those with experience teaching CTE courses, administrators identified the years they taught ranged from 6-20 years. Business, Marketing and Computer Education and Family and Consumer Science were the primary areas of CTE taught.

As identified by administrators, Agricultural Education and Business, Marketing, and Computer Education are the areas of CTE with the most courses offered, followed by Technology and Engineering

Education, Family and Consumer Sciences and Health Sciences Technology. While at least one area of CTE was offered at all the high schools of administrators, Business, Marketing and Computer Education was the one field of CTE that was offered at 100% of all the high schools (see Table 1). The overall responses of administrators suggest that CTE programs are very diverse and offer a wide range of choices of students. Some of the programs most readily identified by administrators include, Food science, Auto-shop and Computer Assisted Design (CAD) courses.

Responses from administrators attest that administrators are "very familiar" with Business, Marketing and Computer Education (100%) as well as Family and Consumer Science (80%). In addition, administrators identified some familiarity with Technology and Engineering Education (80%). Health Sciences Technology and Agricultural Education were two areas of CTE administrators expressed the least familiarity (see table 2). Responses connoted administrators are mostly knowledgeable of CTE programs (See Table 3). Most administrators indicated some knowledge of all the programs; however, findings show there was no one field in which all administrators were "highly knowledgeable".

Table 1 Areas of CTE offered at High Schools

Agricultural Education	70%
Business, Marketing and Computer Education	100%
Technology and Engineering Education	80%
Health Sciences Technology	30%
Family and Consumer Sciences	90%

Table 2 Familiarity Levels of CTE

	Not Familiar	**Familiar**	**Very Familiar**	**Response Count**
Agricultural Education	80% (4)	20% (1)	0.0% (0)	5
Business, Marketing and Computer Education	0.0% (0)	0.0% (0)	100 % (0)	6
Technology and Engineering Education (Industrial)	0.0% (0)	33.3% (0)	66.7 % (0)	3
Health Sciences Technology	100% (2)	0.0% (0)	0.0% (0)	2
Family and Consumer Sciences	20% (1)	80% (0)	0.0% (0)	5

Table 3 Knowledge Level of CTE Areas

	Highly Knowledgeable	Knowledgeable	Moderately Knowledgeable	No Knowledge	Response Count
Agricultural Education	10.0% (1)	30.0% (3)	30.0% (3)	30.0% (3)	10
Business, Marketing and Computer Education	40.0% (4)	40.0% (4)	20.0% (2)	0.0% (0)	10
Technology and Engineering Education	20.0% (2)	40.0% (4)	40.0% (4)	0.0% (0)	10
Health Sciences Technology	0.0% (0)	25.0% (2)	50.0% (4)	25.0% (2)	8
Family and Consumer Science	20.0% (2)	60.0% (6)	10.0% (1)	10.0% (1)	10

The responses of administrators highlight a wide range of career options accessible by a diverse body of students including but not limited to Honor roll students, Athletes, Band, Science majors, and Art majors. The majority of administrators agreed the average student in CTE programs held a 2.5 GPA or higher. Administrators were unanimous in their belief that CTE programs adequately prepare students for the career world, in their recommendation of high achieving students—in this case students with a 3.5 GPA or higher for CTE courses—and most importantly that CTE courses are relevant in our current educational system. In addition, 90% of administrators either "strongly agreed" or "agreed" that CTE programs promoted or encouraged students to pursue and attain postsecondary education

There was a widespread consensus among administrators that CTE classes align well with the State of Illinois' learning standards. Ninety percent of administrators either "strongly agreed" or "agreed" with only one neutral response to this question.

When questioned about funding sources, overwhelmingly the Carl D. Perkins grant was identified as a major source of funding by 75% of respondents as compared to Illinois State Grants which were identified by only 25% of respondents as their major source of funding.

In summary, survey results revealed administrators acknowledged CTE programs promote or encourage students to pursue postsecondary education. When interviewed a few administrators also pointed out that the career exploration available to students in CTE courses is important for postsecondary oriented students and that CTE should be required. Administrators considered career exploration to not only help students choose a job directly out of high school, but it would also help students who intended to attain a postsecondary degree make a wise decision when choosing a degree to pursue.

However, other questions throughout the interviews demonstrated the reality of the CTE program did not match administrators' positive perceptions. The majority of administrators agreed lower level CTE courses are less rigorous than introductory core academic courses. Upper level CTE courses are considered as rigorous as college prep courses, however they are at a disadvantage since AP and Honors courses are weighted and CTE courses are considered electives. This comparison demonstrative of the fact CTE courses may be viewed as preparing students for postsecondary education; however, the reality is they do not compete with core academic/college preparatory classes. Moreover, when administrators were asked for what careers CTE prepares students, not one administrator suggested a career that required a postsecondary degree. Results are indicative that CTE courses are said to prepare and encourage students for postsecondary education, but the career options they consider available for CTE students demonstrates they do not envision the students in CTE courses to pursue postsecondary education.

Conclusions

The purpose of this study was to gain a better understanding of the attitudes and perceptions of high school administrators (i.e. principals, counselors, department chairpersons) about the importance and value of career and technical education (CTE) in today's society – in particular in urban and suburban communities in northern Illinois. This study includes a series of face-to-face and phone interviews as well as an online survey to collect the thoughts of various administrators.

Although career and technical education was once a thriving curriculum with relevance to a large number of students, today's educational standards has made it difficult for these type of courses to gain the same level of support as the "core" courses students are required to enroll. According to the administrators in this study, career and technical educations courses can provide great value to students however the other academic demands, the under-funding of CTE courses and the "elective" status of these courses have continued to hurt enrollment numbers. Previous studies have proven the value of CTE courses in preparing students for the career world and other life skills needed for success in any industry, however, these advantages are overshadowed by the demand of meeting National and state educational standards and the push for higher test scores and Grade Point Averages to meet the requirements for entrance into post-secondary institutions.

There were two conclusions from the study. First, the administrator's perceptions of CTE program of perceived student success did not match the reality of the classroom. Second, the societal pressures, resulting from current educational acts and University requirements, are having a detrimental effect on the perceived value of CTE programs, by limiting a student's class schedule time for CTE courses.

Second, the influence of educational acts, such as, No Child Left Behind, has led to the growing societal view that high school is solely preparatory for college. This, in turn, has allowed Universities' entrance requirements to impact high school course selection, which is heavily impacting the current and future status of Career and Technical Education programs. Funding was a common theme when addressing current program challenges, but stemmed from various sources. With the expensive upkeep of the program, and the push for a student to fill their class schedule with core academic courses, many administrators shared concerns that CTE is not being seen as a financial priority. The collective idea resides with all students graduating from high school and enrolling in a four-year university. However, as one administrator stated, "In the end everyone ends up working for the rest of their lives…We need to recognize [students who do not pursue postsecondary education] are an important part of our workforce and put the dollars back into the schools so we have employable students."

Society views and student type

To conclude, there are many struggles facing CTE that are preventing the programs from meeting their full potential. Due to the expectation for postsecondary degrees, administrators believe that CTE is currently in survival mode. It has become apparent that educators and administrators need to work together to align CTE programs with the societal standards and expectations. In order to do this, the positive perceptions of CTE programs need to become the reality. CTE coursework needs to be as rigorous as core courses and proven to offer benefits that will make it worthwhile for parents and administrators to support courses as more than an elective. Requiring courses would not only overcome many of the challenges of the CTE program such as decreased enrollment and funding, but it would also draw upper level students into the program. Administrators that were interviewed stated that they would like to see CTE become required and would like core academic curriculum to become integrated within CTE courses so that it is aligned with core academic courses for college bound students

Carl D Perkins identified as major funding source, which is mainly for CTE, however, still at potential to lose this funding specifically allocated for CTE. This seems to be due to the push for more core academic skills in an effort to push children who may not be on the path for college to go anyway.

Recommendations

According to this study, there a number of challenges in Career and tTechnical Education that must be addressed to ensure a viable future within this field of study. First, the Illinois State Board of Education needs to examine modifying curricula to provide Honors and Advanced Placement credit accepted by higher education institutions throughout the state. As more students seek to become competitive for college admissions and scholarship programs, the importance of a solid academic record has caused elective courses to become less of a draw.

Second, in times of tight and reduced state budgets, career and technical education programs continue to lack of the level of financial support required for sustaining established programs as well as the expansion of new programs. Administrators must recommend cost saving measures which often impact curricula considered as non-essential to student success. CTE personnel must continue to seek methods to align these courses with state standards to meet required educational requirements for students. In agricultural education, certain high school schools count as science-credit such Biological Sciences in Agricultural Applications (BSAA) and Physical Sciences in Agricultural Applications (PSAA). Students are able to still enroll in a CTE course while also meeting the educational requirements for graduation as well as science requirements for entrance into Illinois universities.

Third, in the literature review of this study, we encountered a lack of studies including facts and statistics supporting the value and success of career and technical education programs in today's educational environment – in particular, outside the field of agricultural education. Administrators expressed the need for data to support the strength of CTE in adequately preparing students for today's career world and post-secondary education opportunities. Although teachers and collegiate faculty within the field understand the value, there is a greater need to educate the public and others within the education

of actual examples and proven statistics to backup claims of the current strength of career and technical education.

Fourth, the researchers encounter difficulty in securing subjects to become involved in the study. Several administrators and school systems were apprehensive in discussing issues and challenges surrounding their CTE programs. The expansion of this study to a state wide administrators conference or in-service would assist in gathering additional insights to help ISBE better serve the needs of each school system.

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