

## **THE EFFECTIVENESS OF TEACHING CAREER TECHNICAL EDUCATION TO SECONDARY STUDENTS AND ITS IMPACT ON CAREER DEVELOPMENT**

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### **ABSTRACT**

*This paper explores five recently published articles that report on the results of the effectiveness of teaching Career and Technical Education (CTE) to secondary students and the impact that it has on their career development. These five articles have been chosen for their very distinct different views on the effectiveness of teaching CTE to secondary students and the impact that it has on their careers. This paper will explore these distinct views in order to come to a conclusion as to what effective teaching skills work to encourage students to be motivated to continue in the career path that they have stated, or become interested in that field.*

*It is imperative that CTE teachers are versed in multiple disciplines and therefore are more active in a student's development. A CTE course should not be a class that the school just places a student in order to fill a gap. It is known that this happens, and the instructor must be able to connect with the student, and have a positive impact on that student.*

**Keywords:** *Career and Technical Education (CTE), secondary students*

### **LITERATURE REVIEW**

When working with a topic such as CTE, the effectiveness of the instructor and the rate in which students continue on the path that they have stated they want to pursue, one will need to look at more than just how they are going to do this. This paper reviews several published papers in this realm and begins with an article entitled *The Effects of Mandated Career and Technical Education (CTE) on the College and Career Preparation of High School Students* (Hagen 2010) to help identify:

1. What are the perceptions from current teachers (academic and CTE) and students?
  - a. Engagement
  - b. Achievement
  - c. Readiness
2. To what extent does the requirement to take a Career and Technical Education course for graduation impact student engagement as measured by attendance and dropout rates?

The information and research posted in this article opens the eyes of the reader as to whether or not Career and Technical Education (CTE) Courses are needed in secondary education.

Most high school graduation requirements and elective recommendations are intended to prepare students for a full spectrum of postsecondary opportunities and responsibilities. As stated by Hagen (2010) there is a demand that all students participate in a pathway of sequenced, practical, and related classes and do well in them in order to be prepared for higher education, the global workplace, and productive community participation.

Although there are several factors that contribute to the career development of young adults, there are seven factors are important in starting the research process of effectiveness in teaching young adults and helping guide them into helping them obtain their stated goals.

The seven vectors of development describe the balanced post-high school individual include developing competence, managing emotions, moving through autonomy toward interdependence, developing mature interpersonal relationships, establishing identity, developing purpose, and developing integrity.

It is generally postulated that students who undergo a concentration of Career Technical Education (CTE) classes alongside rigorous academics are more likely to a) enter post-secondary training with a career purpose, b) require less remediation, c) have higher completion rates than the general population, and d) complete their education or training in less time.

In this paper, the first explanation showed the integration of core academics with skill training in the hope that it would show that it is a very key concept to the success of not only the instructor, but the students as well.

The second contribution to the current literature is Practical Literacy Matters: Teacher Confidence is Key (Santamaria, Taylor, Park, Keene, Van Der Mandele 2010). When an individual is teaching it was stated best that "one of the most effective ways that teachers can help their students succeed (and therefore grow confidence) is to be students themselves".

The effectiveness of the teachers is based on how confident the teacher is in the class. Three factors found in this specific article are

1. Teachers need clear professional development
2. Teachers need to be open and try to implement strategies
3. Need to know the reasoning behind how the strategy works

When we talk about confidence being key, confidence and resistance are linked. If a teacher understands the literacy framework for reading strategies, that teacher will find success in implementing strategies even though he or she may not have taught with specific literacy strategies. In order to fully understand issues with effectiveness, one main issue arises and can be very hard to overcome. That issue is how to effectively implement literacy strategies in the classroom for maximum impact.

CTE teachers have indicated through the years that they are not Reading, English, Math, or Science teachers. This will affect the effectiveness of instruction and will indirectly hinder the confidence of the instructor. In attending a schools' professional development, one will need to actively participate in the class. This

means asking questions and getting involved with the demonstrations. Not all ideas will be suitable to be implemented in all classes; one may have to use a part of one or several parts from different experiences.

To be effective, a teacher needs to be open and try to implement different strategies. There are teachers that use the same style or strategies for years and they will start to lose their effectiveness in teaching a class. There are several reasons that this happens. One of the biggest reasons is that a teacher will get complacent. Five years ago a strategy may have worked, but as we advance, teachers need to change with the times to keep their effectiveness in teaching. The trial of a strategy becomes easier and more effective. This is due to the teacher knowing what to expect from the strategy, and what the students expect.

If one enters into a class with the intent of implementing the strategies blindly one's effectiveness in teaching will not be what was desired or expected. Teachers should have an understanding of the pedagogical approach, and know the reasoning and theory behind how strategies work. When this happens, their confidence is enhanced and this will help the students learn and become professionals in any CTE field.

The third contribution is High School Students' Perception of Career Technical Education and Factors that Influence Enrollment in Programs at a Regional Occupational Center (St. Gean, 2010). When one examines the effectiveness of teaching CTE to secondary students and the impact that it has on their careers, one will need to look at the perception of the program that the students have. Instructors will have to look at several different factors when examining their perception of CTE. When pupils think of Career Technical Education three main roles are often recalled:

1. Encourage less-motivated students
2. Allow students to experience real-world applications
3. Opens avenues of opportunities

When one examines the numbers, the majority of the students enrolled in a CTE course are struggling with other classes. Not many studies have been conducted concerning the demographics of CTE students. One that was conducted found that CTE students were slightly more disadvantaged than non-CTE students (Gaunt, 2005). The students that are more disadvantaged are likely less motivated than those that are "college bound". When instructors have students like this, it is up to the instructor to gain and maintain that student's focus and enhance their motivation, and enthusiasm.

Students that are in the lower half of the socioeconomic ladder tend to not have as many opportunities to learn about real-world applications. When teachers have students that do not have the means to learn about "life", the instructor needs to be able to relate to this and pass on the experiences that he/she has gained in the work force. Relating this back to the effectiveness of the teacher, this will come down to their confidence and strategy. When allowing students to experience real world applications of higher math and science, the CTE teacher should be confident and effective. They should project an air of confidence and charisma.

In the world in which we live, not all students want to go straight to college after high school. When instructing a class, teachers will have to make sure that the students are aware of the many open avenues into the work force.

When the course information is presented to a class this will (or should) catch their attention. Letting the students know what is out in the world past their own town is difficult to communicate.

When a student gets comfortable or knows only what they have seen, it is hard for them to see anything else or fathom other possibilities. When the teacher is effective, this will then help the students achieve their goals in life regardless of their socioeconomic status.

The fourth article reviewed is *The Impact of Career and Technical Education Programs on At-Risk Secondary Students* (Smith, 2012), which will explain what types of students are primarily enrolled in a CTE course. CTE courses have been proven to help provide a work force to the national labor market by teaching valuable skills. CTE is important in high school to help the students explore career paths. Smith (2012) explores the need for Career Technical Education in the aspect of helping students get a feel for what they want to do, and also for the effectiveness of the instructors.

A large majority of the students that are enrolled in a CTE course are considered at-risk and have had problems in the traditional setting of school. CTE has had a profound impact in saving the youth who are lost or who are struggling or "at risk". The topic of how to engage and teach the at-risk students is still being discussed. How one keeps a student engaged is to expose that student to future career opportunities and technical skills. This is also an outstanding way to have the students gain a better understanding of science, technology, engineering, and math.

When we think about CTE courses six views which were stated in this article provide a clear understanding and comprehension of the field. It states that students that are engaged have a higher rate of success in the field that they choose, and also implicates that the teachers will also need to be effective. The six views are:

1. Preparing students with the education and technical skills they will need for successful employment.
2. Teaching them all aspects of an industry
3. Enhancing academics by bringing a real-world context and application to education
4. Teaching students to apply high-level math, science, technology, and language skills within the workplace and local community
5. Preparing high school students for college
6. Preparing students with the academic foundation to be lifelong learners.

The fifth article reviewed in this realm is *Career and Technical Education in High School: Does it Improve Student Outcomes?* (Dougherty, 2016) The main focus of this article was:

1. Which students are taking CTE courses?

2. Does greater exposure to CTE improve education and employment outcomes?

3. Does CTE concentration have benefits for students?

When examining the effectiveness of the instructors and whether the students are achieving their goals one will be looking at factors such as the labor market and the impact of CTE on academics.

The majority of students take at least one CTE course while in high school. At the current rate students that are not going to attend a four-year university are the students that take more than one CTE course in high school. The idea is to expose all students to a career path that they are interested in pursuing. For example, if a student is interested in the medical field then most schools that have a CTE program will have a higher enrollment of students in that part of the CTE program. The classes or courses that are more popular will have the higher enrollment rates. The instructor and their effectiveness has the largest part in helping create a successful program.

When one has a positive or negative exposure to a class, the enrollment will be affected. If you have positive exposure by the teacher, students, success rate, hands on experience, and job placement one will have a higher level of education and graduation rate. One will have a higher level of math, science, technology, and language skills instilled in the students that complete the courses. As stated in the article, students who take more than seven CTE courses increases the probability of graduation from high school.

## **SUMMARY**

When taking a concentration of CTE courses in high school, research shows that the students that complete a CTE program are more likely to earn more in a career than just traditional classes. While taking these courses, there are several factors that influence the labor market. The most prevalent is hiring a qualified instructor. An instructor with work experience in the field that they are teaching is a must, but that is not the only aspect. The instructor must be effective in teaching, engaging, and connecting with students. When connecting with students one will always have students that are not interested in the field and it is the job of the CTE instructor to make this happen. One way is to show that businesses will pay more for a student with a higher level of math, science, technology, and language skills.

It is hoped that this article has provided a cursory overview of some of the main issues in the field of CTE and provided some insight into the factors and variables that are imperative for success in the field of CTE.

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