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# Preparation of Career and Technical Education Teachers for Working with Students Who Have Special Needs

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Preparation of Career and Technical Education Teachers for Working with Students Who  
Have Special Needs

by

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Thesis

Submitted to the Department of Special Education

Eastern Michigan University

in partial fulfillment of the requirements

for the degree of

MASTER OF ARTS

in

Special Education with a concentration in Cognitive Impairment

Thesis Committee:

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## Abstract

This research study looks at the preparation of Career and Technical Education (CTE) teachers working with students who have special needs. If the CTE teachers have been prepared through formal education and updated training, participate in the IEP process, and have access to and use goals and objectives of students who have IEPs, then CTE teachers will feel prepared to work with students who have special needs. Specifically this study looked at three areas: how much formal education CTE teachers had as well as up-dated training for working with students who have special needs within the last twelve months; if CTE teachers had participated in the individual education plan (IEP) process for students' within their program, and if they had access to the IEP to meet the students goals and objectives.

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## **Chapter 1: Introduction and Background**

### **Background**

This study looked at how career and technical education (CTE) teachers are prepared to work with students who have special needs and how, according to research by Harvey (1999, 2000) and others, CTE programs can be beneficial for this population of students. Specifically, this study looked at the area of teacher preparation, participation in the individual education plan (IEP) process for students with special needs within the CTE teacher's program, and how prepared overall a CTE teacher feels for working with students who have special needs.

### **Justification and Significance**

Literature presented in this study raises questions regarding the preparation and participation of CTE teachers with students who have special needs in CTE programs. As more students with special needs are being enrolled in CTE programs, are CTE teachers receiving any instruction in working with this specific population? The benefits to students with special needs include an increased level of employment skills (Carl D. Perkins Vocational and Technical Education Act of 1998, 1998) that may not be gained in the general education classroom. This is an important area where CTE teachers can have a great impact on the lives of students with special needs that cannot often be seen in the general education classroom, due to the unique nature of these programs. Statistics by Harvey & Pellock (2004) show how beneficial CTE programs can be to students transitional goals and how they provide more authentic scenarios for practicing skills needed once the student leaves the educational setting. According to Sarkees-Wircenski & Scott (2003), CTE programs provide students with special needs with relevant education. This research study looked at how CTE

teachers participate in and are knowledgeable of the planning process and have access to the goals and objectives of students with special needs.

### **Research Questions**

Supported with literature, this body of research is hoping to answer the following questions.

Are CTE teachers seeing students with special needs in their programs? How much education have these teachers received in working with this specific population, and has additional training occurred within the last twelve months? Do CTE teachers feel that they are adequately prepared to work with the population of students with special needs, and are they able and/or encouraged to participate in the planning of lessons and/or programs for students within their programs via the individual education plan (IEP) process, including having access to a student's accommodations set forth in the IEP document? The final question of this research is to find out if the CTE teachers believe that their classes are contributing to meeting the goals and objectives of the student as set forth in the IEP document.

## **Chapter 2: Review of the Literature**

According to Sarkees-Wircenski & Scott (2003), “Secondary level career and technical education (CTE) provides students with disabilities relevant education; positive school experiences; limits dropout; and promotes success in post-school outcomes.” The ability and opportunity that are available to a student with special needs by combining the knowledge and resources of two seemingly different departments within a secondary setting can bring the student success in many areas, although there are many challenges as well for the educators involved in the process. While disputes can and do occur between the different stakeholders (educators, the student involved, administration, parents, and others) in the placement of students with special needs in CTE programs, if all the stakeholders have the same end goal in mind, collaboration, communication, and overall student success can be achieved.

While there are many advantages of participating in CTE programs for all students, benefits can be extremely valuable for students with special needs in their post-school outcomes. The benefits to students with special needs include an increased level of employment skills (Carl D. Perkins Vocational and Technical Education Act of 1998, 1998) that may not be gained in the general education classroom; an opportunity at a higher quality of life; and more of a connection to the school system that they are currently in or will move to after high school (Harvey & Pellock, 2004). While these outcomes are what any student participating in CTE programs can expect, they increase the likelihood of a student with special needs finishing the secondary education program and moving toward some form of post-secondary education or additional training according to Harvey & Pellock (2004). Students with special needs are more often in CTE programs (37.5% compared to their non-



disabled peers [24.6%]) according to Haber & Sutherland (2008). There is little doubt (Haber & Sutherland) that participating in CTE programs can be a positive experience for students with special needs. Including these students in different programs, such as CTE programs, allows them to continue their education to whatever completion has been planned in the student's individual education plan (IEP).

The State of Michigan special education regulation 340.1702 Rule 2 allows for services to individuals with special needs to be provided from birth through age twenty-six. In doing so, transition services and plans for how an individual will live, work, continue education if it is wished for, recreate, and relax has to be taken into consideration once a student has turned sixteen. During transitional plan meetings that take place during high school, a student has an opportunity to create a plan for how he or she wishes to spend the next portion of his or her life. The student's quality of life is considered during these transitional meetings, and foundational plans are made (Stemple, Wayne RESA). During the planning of a student's individual education plan and transition plan, the stakeholders look at what resources are readily available in the secondary setting to help students meet their future outcomes. This can be done by using classes and programs available to the general population of students, including CTE programs that are offered at each student's secondary education setting.

Students with special needs can be very successful in CTE programs. The value of students with special needs participating in CTE programs is seen in more ways than just the educational placement (Haber & Sutherland, 2008). Part of being successful is the support that is accessible to the student; this support is based on the student's individual education plan and is written into the accommodation portion of the document. The largest support the

student can have, which is often not adequate, is CTE teachers who can effectively teach the students the skills necessary to be successful in the program (Haber & Sutherland, 2008; Harvey, 2000). The next element of support is being correctly enrolled into the program and having very clear expectations of what it will require, as well as the expected outcomes, and a clear understanding of the accommodations that could be used in the program setting (Harvey, 2000).

A clear conflict among CTE teachers and special education teachers can be the lack of communication between the two parties involved. When students are placed into a class or program without an understanding by all of the educators involved about the student's expectations and accommodations available, the student may not be meeting the hoped-for outcomes due to a lack of communicating (Haber & Sutherland, 2008; Michigan Department of Education, 2009). In addition a lack of understanding of the standards of the program, which are often industry standards, can also cause conflict (Michigan Department of Education, 2009). CTE teachers do not always understand the needs and abilities of students with special needs and what can be done to educate those students within their program. The opposite is true of special education teachers who have great knowledge about the needs and abilities of their students, but lack knowledge about the CTE programs available and the expectations and standards within those programs. Both of these deficits can hinder a student's success within any program.

Teachers of students with disabilities believed that the administrators push towards inclusion of students with disabilities in CTE program as cost-cutting measures, in contrast to the opinion of general education teachers who believed their classroom became a 'dumping ground' for students who may

not have been the best suited for the curriculum. (Cook, Semmel, and Gerber, 1999)

This feeling can be shared about many areas and many types of classes, but it is more often felt in the CTE programs, where they do not have any input on whether students with special needs are put into their programs (Cook, Semmel, and Gerber, 1999). Since the CTE teacher is held accountable for not only maintaining the standards and curriculum of their program (Michigan Department of Education, 2009), but also the safety of what are often laboratory settings (Evanciew, 2003), they (CTE Teachers) often want to make sure qualified students are placed within the program. “The text of the Americans with Disabilities Act explicitly says that a ‘qualified student’ may not be denied access to a program based on a disability” (Michigan Department of Education, 2009). Interpreting this, then, would mean that any student with special needs would be as qualified to take a specific CTE program as a student without special needs if he or she used the support and accommodations allowed in the IEP document.

Since both departments (special education and CTE) are considered subject matter experts when working within the secondary setting, having all of the educators who will have interaction with the student in question being present at decision-making meetings, such as during the IEP process, is important to the student’s outcome. The CTE teachers know what is required of the class or program in question since they (the CTE teachers) will be meeting industry standards (Michigan Department of Education, 2009), so they are better able to provide input during the decision-making process to help determine if the student will be qualified to enter their class and be successful within their program. If the CTE program requires more than what the student can be successful at, even with accommodations and

support, then that program or class is not the correct placement for him (Michigan Department of Education, 2009). CTE teachers' input into the decision-making process can often result in students being placed into the correct classes or programs, and disregarding the subject matter experts (CTE teacher of the program in question) opinion in this matter tends to lead the CTE teachers to believe that their program has turned into a "dumping ground," according to Cook, Semmel, and Gerber (1999) for students who are not qualified for the program but have no other place to go.

The other teacher involved in this process is the special education teacher who is working with the CTE teacher and other stakeholders to make decisions about placing a student into a CTE program. The special education teacher is considered the subject matter expert concerning the student's disability and how it affects his or her learning, the student's behavior and how his or her work within different settings, what strategies for differentiated instruction work best for the student, and what type of accommodations are appropriate and work for the specific student. All of these elements have to be taken into consideration when trying to suitably place a student into a CTE program, as they all affect the success of the student's outcome within the class.

Working together, both of these stakeholders, as well as others, can utilize CTE programs to teach the student transitional and occupational skills that will serve him well after he leaves the secondary setting. In order to make use of the expertise of the educators involved, communication and collaboration must occur. According to Evanciew (2003), CTE teachers have had, at best, a single basic class that is an overview of working with students with disabilities. CTE Teachers as educators may have to seek out the information necessary to work successfully with students who have special needs for their specific programs. In

contrast, special education teachers have methods classes on working with the core academic subjects and classes on transitions but nothing in working with CTE programs and how they can teach transitional skills. Haber & Sutherland (2008) mentioned that with each educator having a great deal of information to share with the other, it should be easier than it seems to be to create a successful working relationship that benefits students with special needs.

Questions that are constantly being asked by many including Harvey (2005) and Evanciew (2003), yet have very few published answers in the literature, involve teacher preparation. Are CTE teachers receiving the information necessary to help students with special needs succeed within their programs? Is there enough training available during the pre-service education and follow-up when a teacher is working in the field with respect to working with students who have special needs? Could professional development or specific workshops be used to instruct and keep CTE teachers current on the strategies and important information for working with students who have special needs within their programs? Harvey & Pellock (2004) say that “effective instruction encompasses adequate teacher preparation and a positive attitude to foster appropriate teacher-learning experiences for all students.” In the same manner that special education teachers have to seek out information about the programs available at their school to help students with special needs, CTE teachers have to seek out the necessary information to work with students who have special needs in their classrooms.

Since most teacher education programs provide only a basic or overview class on students with special needs, according to Harvey & Pellock (2004), a great deal of information that is specifically needed for CTE teachers often is overlooked. Information on safety and liability issues and how to teach these issues to students who need different

instructional strategies are often absent. Also included in the information that is missing is how to teach students with special needs in a laboratory setting, which is where some CTE programs take place, or in multiple settings. The third element of important information that is often missing is how to accommodate the instruction for a specific student's needs without modifying the program or changing the standards and expected outcomes of the curriculum. Since CTE programs follow industry standards, it is significant that they do not modify the program, at which point achieving those standards becomes unlikely, instead accommodating them to meet both the students' needs and the program expectations. Harvey (1999) has suggested that CTE teachers take an additional 6 hours of instruction that is geared specifically towards working with students who have special needs. These hours would contain instruction on understanding the different types of disabilities and how students learn, special education legislation, how to create and use accommodations for students with special needs, different instructional strategies that work with this population, additional classroom management strategies, and how [CTE teachers] input into the IEP can greatly benefit the individual student with some form of disability. This additional education would greatly help CTE teachers overcome what many consider their greatest deficiency in teaching, which is working with students who have special needs. According to the literature by Gray & Walker (2002), the feeling of being unprepared to work with students who have special needs is common but could be turned into a real strength with more education in that area. Harvey (1999) recommends this be done with semester hours; however, this training could also take place within workshops or professional development.

Students with special needs can flourish in CTE classes and programs. In order to do so, they need to be set up to succeed from the beginning. Incorporating CTE classes into a

student's transitional and education planning as a method of learning post-secondary skills can be very positive and rewarding for everyone involved. Collaboration, communication, and cooperation of all the stakeholders involved can lead to a well-planned course of study where CTE teachers know when to expect students to enter their program and what, if any, accommodations are necessary. According to Harvey (2000), that is not often the case. Students with special needs can still succeed, but the path to doing so is much more difficult. Having all of the teachers involved being knowledgeable about how to work with students who have special needs will greatly improve the students' opportunities to succeed. Being proactive in having students with special needs in a CTE program, by planning for any needed accommodations or making sure that the students intended placement is the correct one, is a much better educational philosophy than to be reactive and place a non-qualified student into a class because there is no room anywhere else, leaving a teacher totally unprepared to deal with the situation. Most students know when the teachers are being reactive and are being forced to take in an unqualified student into their classroom, but the student is required to remain there anyway. According to Harvey & Pellock (2004), having all educators involved in working with students who have special needs knowledgeable about what they can do to help students in their specific subject area will increase the student's chance of success. If so, these successes could carry past the secondary setting into post-secondary education and a working career. With multiple pieces of literature (Cook, Semmel, and Gerber, 1999; Harvey & Pellock, 2004; Harvey, Cotton, and Koch, 2005) asking similar questions regarding teacher preparation and its impact on students with special needs within their programs, more information and data need to be gathered in order for answers to be supported with empirical evidence rather than just hypotheses.

### **Chapter 3: Research Design and Methodology**

This research study was designed to be conducted among adult teachers who are currently working in Career and Technical Education (CTE) buildings and campuses that are not directly attached to a single school district, but rather a county-wide program. In the state of Michigan there are several delivery methods for students receiving education in CTE programs. Students can remain at their home schools and take classes there. In many areas, the county intermediate school district (ISD) runs a larger CTE program when certain classes many not have enough students at one school to allow a full class, such as small engine repair. The third method is where several counties run a regional CTE program due to the number of students within an area. This study was looking specifically at the programs run by the county ISD, which served students from several different home school districts.

The design of this study was quantitative, with individual participants completing a survey instrument designed specifically for this purpose. Volunteers were recruited from three different programs in separate parts of the state of Michigan and represented a variety of socio-economic groups. Principals and Directors from county-wide CTE programs across the state of Michigan were contacted by electronic mail (e-mail) by the researcher to seek permission to ask their staff to participate in the survey for this study. Thirty e-mails were sent out and responses received from four principals, three with a positive response and one that did not fit the nature of this study. Further contact was made through phone communication and additional e-mails to make arrangements for the principals teachers to have an opportunity to participate in this research survey.

Research was conducted in person at two of the locations and the third through an e-mailed copy of the survey sent to the principal with hard copies sent back to the researcher.



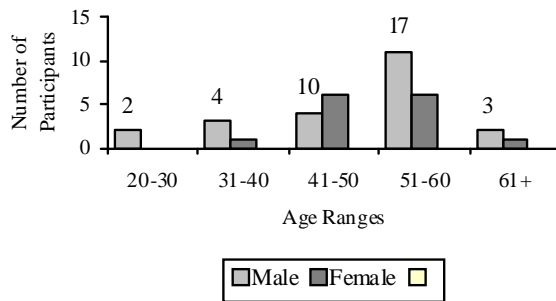
Individual teachers received an introductory letter that provided the purpose for the research and the intended use of the results, a consent form granting their permission to participate, and the survey instrument itself to complete. The survey took approximately five minutes to complete and was done while at a staff meeting after school at the location of the participant's employment. The research was conducted over the course of five months, from October 2011 to February 2012.

The population make-up of participants in this study was targeted to a specific population of educators who taught CTE programs outside of the traditional high school locations. Participants were asked to identify their gender, age range, and the highest level of education achieved. No other demographic information was gathered as it did not have an impact on the research that was conducted.

## Chapter 4: Results

The survey instrument used for this research study was designed to ask demographic information, based on a CTE teacher's age and education level, that would have an impact on their level of preparation for working with students who have special needs. A total of 44 individuals participated, with 36 containing valid data for use within this study for a return rate of 81%. Twenty-two participants identified their gender as male, 14 female. Participants

Figure 1: Participant Age Ranges

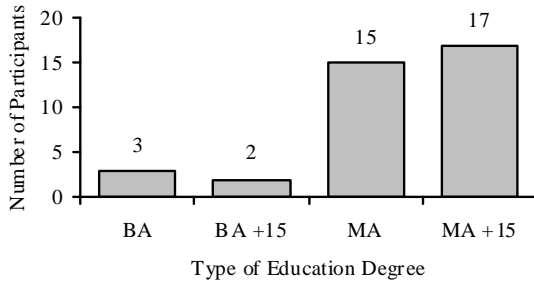


were then asked to describe their age within a range, choosing from 20-30 (2), 31-40 (4), 41-50 (10), 51-60 (17), and 61 and above (3; (See Figure 1). In addition to looking at the age ranges of all of the participants, the amount of time spent teaching, specifically teaching CTE classes, was also requested.

Participants' general education teaching experiences ranges from .5-38 years, with an average of 18 years. Participant's CTE teaching experiences ranges from .5-38 years, with an average of 16 years.

The final piece of demographic information was each individual's highest level of education achieved. Those who had an additional vocation certification specific to their program or had taken an alternative means of certification indicated that in the demographic information. The levels of education were broken down into several categories: bachelors degree (3), bachelors degree plus fifteen college credits (2), masters degree (15), and masters degree plus fifteen college credits (17; See Figure 2). Nineteen (19) participants also had

Figure 2: Highest Level of Education Achieved



additional vocational certification in their specific program area, and 1 participant had taken an alternative means to achieving certification.

The first question of this research study was asked to determine the number of students with special needs who participate in CTE programs in the county-wide technical centers. For these three programs, 26.6% of the students involved are students with special needs who are identified as having an Individual Educational Plan (IEP) from their home school district (See Figure 3). Each of the three programs has two sessions, one in the morning and one in the afternoon, and both have included data on the total amount of students as well as those who have special needs with a similar percentage of students with special needs in both sessions (See Figure 4). During the morning sessions of all three programs, there are a total of 854 students participating in CTE programs, with 225 students who are also on IEP's. In the afternoon sessions, 905 students participate in CTE programs, with 243 of those students having an IEP.

Figure 3: Total Number of Students In 3 County-Wide CTE Programs

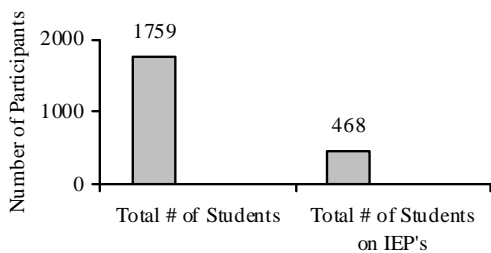
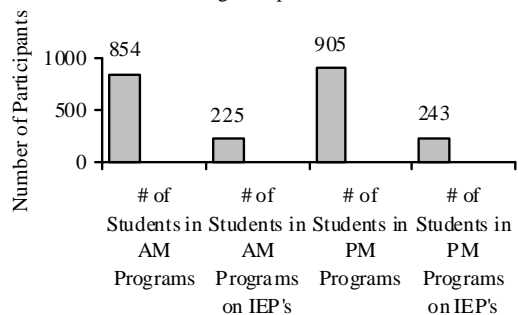
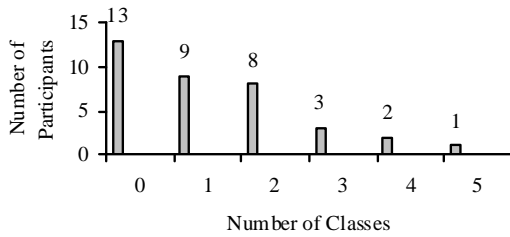


Figure 4: Number of Students Participating in CTE Programs per Session



This research study was specifically looking to see if CTE teachers have had any type of preparation for working with students who have special needs in their classes, and if so, how much. Participants were asked to identify how many classes during their formal

Figure 5: CTE Classes Specifically On Working With Students With Special Needs



education specifically dealt with students who have special needs, with results ranging from none to five classes and an average of 1.3 classes for the entire study (See Figure 5). In addition to formal education, participants were asked to identify if they had received any training within the last twelve months

specifically on special needs, with eight (8) positive responses and twenty-eight (28) negative responses (See Figure 6). Twenty-two point two percent of the participants identified as having received training in the last twelve months for working with students who have special needs.

Figure 6: CTE Teachers Who Have Had Training Within The Last 12 Months

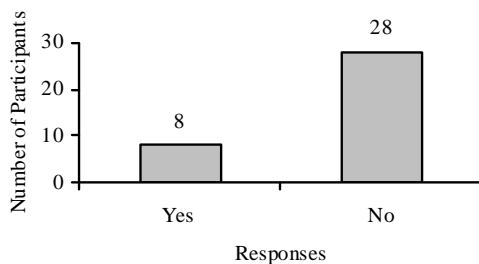
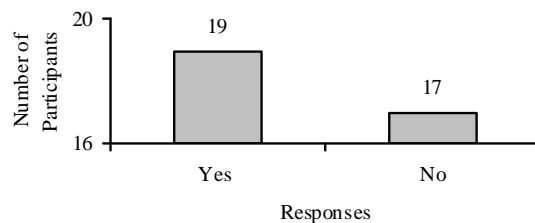


Figure 7: CTE Teachers Who Feel Prepared To Work With Students With Special Needs



The next survey question asked whether CTE teachers feel that they are prepared to work with the population of students with special needs. This study specifically asked this question of each participant, with 52.8% responding in the positive: that they feel prepared to

work with students who have special needs. Nineteen participants responded that they felt prepared, and 17 responded in the negative (See Figure 7). With participants responding to this question with no definition of what it means to feel prepared to work with students who have special needs, the question and results cannot be taken to mean more than a general feeling of being prepared.

Harvey, Yssel, Bauserman, & Merbler (2010) write of the importance of collaboration among general education (including CTE) teachers, special education teachers, and parents involved in the placement of a student with special needs within a specific CTE program. Respondents identified their participating in the IEP process for students with special needs in both their morning and afternoon sessions (See Figure 8).

Figure 8: CTE Teachers Participating in the IEP Process

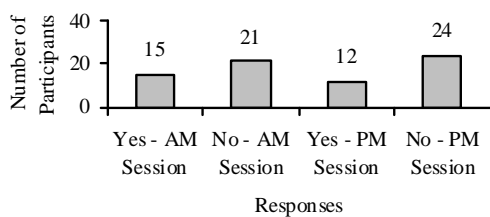
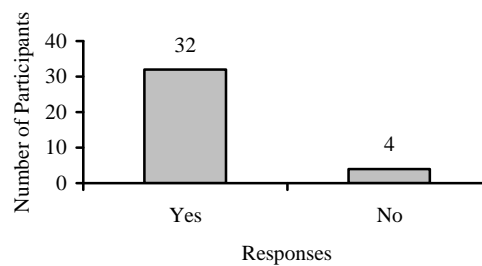


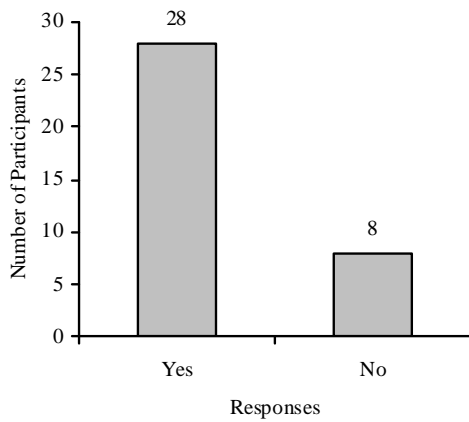
Figure 9: CTE Teachers Having Access to IEPs



More than 40% of the individuals in this study responded that they did participate in the IEP process for at least one student with special needs in their morning session, and 33.3% participated in the same process for at least one student in their afternoon session. In addition to participating in the IEP process for students with special needs, study participants were asked if they had access to students with special needs IEP. Over 88% of the respondents stated positively that they did have access to the IEP for students within their programs (See Figure 9).

The final research question looks into the CTE teacher's belief that their class is meeting the goals and objectives of a student with special needs IEP. 77.8% of CTE teachers who participated believe that their class does meet the goals (See Figure 10). This information is very similar to information in Haber & Sutherland (2008), which looked at how important it is that students with special needs learn many different life skills in a variety of settings and situations in order to effectively learn the life skills they will need in the future.

Figure 10: CTE Classes Meeting IEP Goals and Objectives



## **Chapter 5: Summary, Conclusions, and Recommendations for Further Study**

### **Summary**

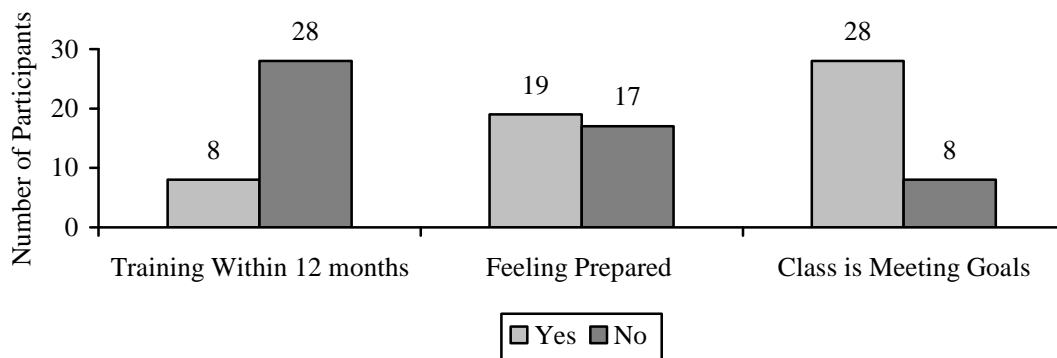
The goal of this research study was to look at three questions related to CTE teachers and students with special needs. First, are students with special needs participating in CTE programs? Second, have CTE teachers had formal training on working with students who have special needs, and has there been any training within the last twelve months? Last, did CTE teachers participate in the IEP process for students with special needs in their classes? Literature presented by Gray & Walker (2002) show that feeling prepared to work with students who have special needs in CTE programs can be beneficial to everyone involved, so this question was also asked to gather information from study participants.

The researcher was surprised at the number of participants in CTE programs identified as students with special needs who were on IEPs. With 26% of students within the county-wide CTE programs having special needs, that indicates that CTE teachers should have up-to-date training to work in the best possible methodologies with this unique population. This percentage is actually less than indicated in literature by Haber & Sutherland (2008), who published a percentage of 37.5% of students with special needs enrolled in CTE classes based on a larger sample size in their research.

Based on the demographic information collected, CTE teachers participating in this study have a large number of advanced degrees and many years of experience in the teaching field. In contrast to the vast experience and knowledge base of the participants is the amount of formal classes on working with students who have special needs within CTE programs. The participants had an average of 1.3 classes, with the range of the group going from no formal classes to five classes. Thirteen of the 36 participants in this study had no formal

classes in working with students who have special needs, yet 19 of 36 participants felt prepared to work with them in their individual programs. There is a similar pattern seen in Figure 11 where the amount of training within the last twelve months is most often much lower than the percentage of positive responses to CTE teachers feeling prepared to work with students who have special needs within their programs.

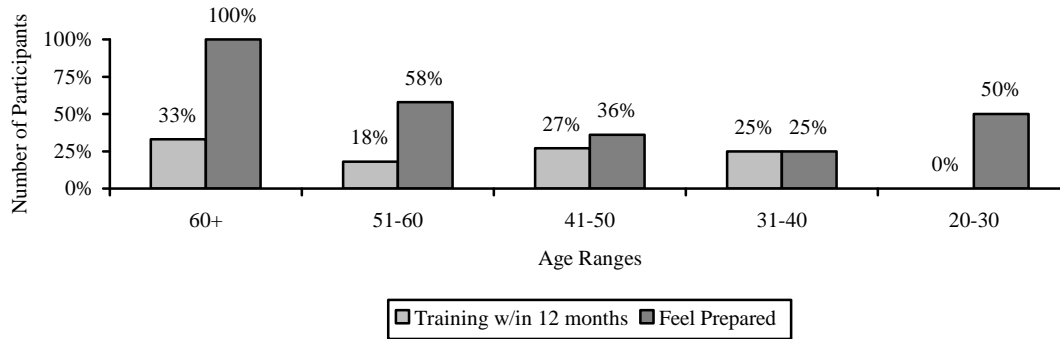
Figure 11: Training Within Last 12 Months vs. Feeling Prepared To Work With Students With Special Needs vs. Class Meeting IEP Goals and Objectives



CTE teachers in the three county-wide programs participating in this research study were seeing 26% of the population of students enrolled in CTE programs as students who have special needs and were identified as having an IEP. With approximately 1/4 of their students having unique needs in the classroom, teachers of a variety of age ranges reported various levels of training to work with these students within the last 12 months. Thirty-three percent of CTE teachers in the 61+ age bracket have had training on working with students who have special needs, 18% of CTE teachers in the 51-60 age bracket have had training, 27% of CTE teachers in the 41-50 age bracket have had training, 25% of CTE teachers in the 31-40 age bracket have had training, yet CTE teachers within the 20-30 year old bracket reported having no training on working with students who have special needs within the last twelve months (See Figure 12).



Figure 12: CTE TEachers Training Within the Last 12 Months vs. Feeling Prepared to Work With Students With Special Needs



In comparison to the survey responses where the highest percentage of CTE teachers who have had training on working with students who have special needs within the last twelve months was 33%, participants self-reported much higher percentages of feeling prepared to work with students who have special needs within their individual programs. One hundred percent of the CTE teachers within the 61+ age bracket feel prepared to work with students who have special needs as well as 58% of the CTE teachers within the 51-60 age bracket, 36% of the CTE teachers within the 41-50 age bracket, 25% of the CTE teachers within the 31-40 age bracket, and 50% of the CTE teachers within the 20-30 age bracket (See Figure 12).

One of the important issues in this study was CTE teacher participation in the IEP process for students with special needs who are enrolled in their individual classes. Cook, Semmel, and Gerber (1999) provide details about teachers not believing that students with special needs are often placed into CTE programs as a place to go rather than belonging in the curriculum. With 41% participation in the IEP process for one or more AM students and 33% participation in the IEP process for one or more PM students, this is most likely not the case for participants in this study. Cook, Semmel, and Gerber (1999) go further, saying that participation by all teachers involved in the education of students with special needs at IEP

meetings helps to ensure that the student in question is a good fit for the curriculum of a particular CTE program.

According to this study, 28 of 36 CTE teachers have not had training of some type on working with students who have special needs, yet 28 of out 36 CTE teachers believe that their individual class is meeting the students' goals and objectives in their individual IEPs. Staying current through training on how to best work with students who have special needs can help CTE teachers feel prepared to work with this population. One element is the CTE teacher knowing how to incorporate their goals and objectives into the current CTE class so that the student with special needs gets the most of the class. Haber & Sutherland (2008) & Harvey (2000) both write of how important CTE classes can be for providing useful transitional experiences for students with special needs, since CTE programs can provide the most authentic examples of real-life work situations while still providing instruction to the student.

In summary, the number of CTE teachers who have had formal education and training within the last twelve months is small when compared to the number of students with special needs who participate in CTE programs. This was also compared to the percentage of teachers who feel prepared to work with this specific population of students. Students with special needs are participating in these programs, but this study does not show an overwhelming number of teachers who are participating in the IEP planning process, nor does it show that a large majority of teachers feel prepared to work with students who have special needs in their individual programs.

## **Conclusion**

With the large population of students with special needs participating in CTE programs, 26% in this study and 37.5% in the literature by Haber & Sutherland (2008), a need is demonstrated to ensure that CTE teachers have formal education and recent training in how to work with this specific population. In this study, the majority of participants' education level was a master's degree or above, yet the majority of participants had one or no classes that specifically provided instruction on working with students who have special needs in CTE. No majority was shown, either positively or negatively, on the question of whether CTE teachers felt prepared to work with students who have special needs (19 responded positively, 17 negatively), and the lack of majority shows that there could be more information and training available to CTE teachers.

More CTE teachers have access to a student with special needs IEP and participate in the planning process than was originally estimated by the researcher, which shows a positive direction to CTE classes being a positive impact on a student with special needs educational outcome, as CTE classes can provide more employment options once a student is out of school in terms of employability (Haber & Sutherland, 2008; Harvey, 2000). Participating in the planning process is critical so that the student is placed into the correct program to meet his or her needs. While the number of CTE teachers participating in the IEP planning sessions for students with special needs in their programs is less than half for each of the two sessions during the school day, partial participation is a positive step.

## **Recommendations for Further Study**

This research study was conducted in three county-wide CTE programs from different socio-economic backgrounds that are serving students who have special needs. CTE teachers within this study have some background on working with students who have special needs and are headed in a positive direction; more instruction and knowledge would be beneficial to the teacher's feeling prepared to work with a student with special needs. The deficit in formal knowledge of CTE teachers for working with students who have special needs provides information for further study and training and development.

Further research into this topic should go into the area of "feeling prepared to work with students who have special needs" and make that more quantitative in nature. A study could go into exactly what skill areas for working with students who have special needs a CTE teacher has and does not have to provide explicit training through workshops or professional development to fill the skill deficit. Does a CTE teacher feel confident with the procedural portion of having a student with special needs in their program (applying goals and objectives to class, using accommodations according to the IEP) but is missing current information in methodology (universal design for learning, differentiated instruction)? Using research instruments to find more specific information about what CTE teachers know and need to know to better work with students who have special needs in their classroom would take this study and further expand upon how to provide training that is targeted to skill deficits.

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## Appendix A: Sample Survey

### Career and Technical Education Teachers and Their Involvement with students who have special needs in Their Programs

Directions:

Fill in the answers below as accurately as possible.

Gender:     \_\_\_ Male           \_\_\_ Female

Age:     \_\_\_ 20-30     \_\_\_ 31-40     \_\_\_ 41-50     \_\_\_ 51-60     \_\_\_ 61 +

Number of Years Teaching :     \_\_\_

Number of Years Teaching CTE Classes:     \_\_\_

Highest Level of Education Achieved:

\_\_\_ Bachelors           \_\_\_ Bachelors + 15 Credits           \_\_\_ Masters           \_\_\_ Masters + 15 Credits  
\_\_\_ Vocational Certification           \_\_\_ Alternative Means to Certification

Number of Students in the Morning Session?     \_\_\_

Number of Students in the Morning Session with IEP's?     \_\_\_

Number of Students in the Afternoon Session?     \_\_\_

Number of Students in the Afternoon Session with IEP's?     \_\_\_

In your CTE courses for certification, how many classes dealt with teaching students with special needs?

\_\_\_

Within the last 12 months, have you had training on working with students who have special needs?

\_\_\_ Yes           \_\_\_ No

Do you feel adequately prepared to work with students who have special needs?

\_\_\_ Yes           \_\_\_ No

Have you participated in the IEP process for the 2011-2012 school year for one or more students in your morning session?

\_\_\_ Yes           \_\_\_ No

Have you participated in the IEP process for the 2011-2012 school year for one or more students in your afternoon session?

\_\_\_ Yes           \_\_\_ No

Were you given a copy or access to the students IEP goals, objectives, and accommodations for any or all of the student(s) whom you attended the IEP process for?

\_\_\_ Yes           \_\_\_ No

Is your class meeting the students with special needs goals and objectives as set forth in the IEP?

\_\_\_ Yes           \_\_\_ No





## Appendix C: Sample Introduction Letter

To Whom It May Concern:

My name is Mary Sunisloe and I am an Eastern Michigan University graduate student pursuing a Master's Degree in Special Education. I have an undergraduate teaching degree in Industrial Technology, and in my short time teaching I have seen the benefits of Career and Technical Education in students with special needs.

For my Master's thesis project, I have chosen to look at how Career and Technical Education (CTE) teachers work with students who have special needs. I believe that CTE programs have a great impact on all students, and can have very positive outcome for students with special needs in their lives beyond the education system.

My survey consists of three sections. The first is a collection of baseline data. The second section is a collection of information asking for an overview of your knowledge of working with students who have special needs. The final section inquires about your participation in the IEP process for any students with special needs within your classes.

The survey data collected is being used for my thesis and is being kept anonymous and confidential in accordance to Eastern Michigan University Human Subjects policies, and each survey and consent for will be assigned a number as an identifier.

If you have chosen to complete this voluntary survey, please take this letter and a copy of the consent form with you. The other copy of the consent form needs to be signed and slipped back into the envelope with the survey. This survey should take approximately three minutes to complete.

Thank you again for your time and consideration.

Mary Sunisloe  
msunislo@emich.edu